

APPENDIX J

Summary of Findings Sediment Analysis

Completed by Alpha Analytical, Inc.

Armstrong Dam Removal Feasibility Study

List of Documents

Document 1: Sediment Analytical Report	2
Document 2: Sediment Analytical Report (Pesticides)	190
Document 3: Summary of Findings.....	137
Document 4: Summary of Findings (Pesticides)	141



ANALYTICAL REPORT

Lab Number:	L1618042
Client:	Gomez and Sullivan Engineers PO Box 2179 Henniker, NH 03242
ATTN:	Aaron Rubin
Phone:	(603) 428-4960
Project Name:	ARMSTRONG DAM REMOVAL
Project Number:	1760
Report Date:	06/30/16

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: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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



Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1618042-01	04	SEDIMENT	BRAINTREE, MA	06/13/16 10:30	06/13/16
L1618042-02	05	SEDIMENT	BRAINTREE, MA	06/13/16 11:40	06/13/16
L1618042-03	08	SEDIMENT	BRAINTREE, MA	06/13/16 14:15	06/13/16
L1618042-04	07	SEDIMENT	BRAINTREE, MA	06/13/16 15:00	06/13/16
L1618042-05	06	SEDIMENT	BRAINTREE, MA	06/13/16 16:00	06/13/16
L1618042-06	03	SEDIMENT	BRAINTREE, MA	06/14/16 08:00	06/14/16
L1618042-07	02	SEDIMENT	BRAINTREE, MA	06/14/16 08:45	06/14/16
L1618042-08	09	SEDIMENT	BRAINTREE, MA	06/14/16 10:30	06/14/16
L1618042-09	10	SEDIMENT	BRAINTREE, MA	06/14/16 12:30	06/14/16
L1618042-10	11	SEDIMENT	BRAINTREE, MA	06/14/16 14:15	06/14/16
L1618042-11	01	SEDIMENT	BRAINTREE, MA	06/14/16 15:00	06/14/16

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

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

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

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question G:

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

L1618042-06: The analysis of Volatile Organics by EPA Method 5035/8260 Low Level could not be performed due to excessive sample weight. A High Level analysis was performed and is reported.

L1618042-07 was analyzed as a High Level Methanol in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial Low Level analysis. The results of both analyses are reported.

In reference to question H:

The WG907917-1/-2 LCS recovery, associated with L1618042-01 to -05, is outside the acceptance criteria for individual target compounds, but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for Diisopropyl ether (69%).

The WG908079-1/-2 LCS/LCSD recoveries, associated with L1618042-06, are outside the acceptance criteria for individual target compounds, but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially high bias for Acetone (133%/139%) and a potentially low bias for Trichlorofluoromethane (68%-LCSD only) and Hexachlorobutadiene (69%/68%).

The WG908330-1/-2 LCS/LCSD recoveries, associated with L1618042-07 and -11, are outside the acceptance criteria for individual target compounds, but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially high bias for Acetone (133%/139%) and a potentially low bias for Trichlorofluoromethane (68%-LCSD only) and Hexachlorobutadiene (69%/68%).

The WG908421-1/-2 LCS/LCSD RPD(s), associated with L1618042-08, are above the acceptance criteria for cis-1,3-Dichloropropene (21%), Toluene (21%), 4-Methyl-2-pentanone (24%), n-Butylbenzene (22%) and Naphthalene (28%).

The WG908456-1/-2 LCS/LCSD recoveries, associated with L1618042-07 (High Level reanalysis), are outside

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

Case Narrative (continued)

the acceptance criteria for individual target compounds, but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for Carbon disulfide (664%/53%), 2-Hexanone (63%/61%) and 1,4-Dioxane (69%-LCS only).

The initial calibration, associated with L1618042-01 through -05, did not meet the method required minimum response factor on the lowest calibration standard for Acetone (0.08357), 2-Butanone (0.08894), and 4-Methyl-2-pentanone (0.05061), as well as the average response factor for Acetone, 2-Butanone, and 4-Methyl-2-pentanone.

The initial calibration, associated with L1618042-06, -07 and -11, did not meet the method required minimum response factor on the lowest calibration standard for 4-Methyl-2-pentanone (0.09492) and 1,4-Dioxane (0.0220), as well as the average response factor for 1,4-Dioxane.

The initial calibration, associated with L1618042-07, did not meet the method required minimum response factor on the lowest calibration standard for Acetone (0.08231) and 2-Butanone (0.07110), as well as the average response factor for Acetone and 2-Butanone.

The initial calibration, associated with L1618042-08, did not meet the method required minimum response factor on the lowest calibration standard for Acetone (0.06736), 2-Butanone (0.06226), and 4-Methyl-2-pentanone (0.06854), as well as the average response factor for Acetone, 2-Butanone, and 4-Methyl-2-pentanone. In addition, a quadratic fit was utilized for Vinyl chloride.

The continuing calibration standards, associated with L1618042-01 through -08 and -11, are outside the acceptance criteria for several compounds; however, it are within overall method allowances. A copy of the continuing calibration standards are included as an addendum to this report.

Semivolatile Organics

In reference to question G:

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

L1618042-03, -04, -05, -06, -07, and -08: The samples were re-analyzed at 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.

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

Case Narrative (continued)

In reference to question H:

The surrogate recovery for L1618042-07 is outside the individual acceptance criteria for DBOB at 145%

Metals

In reference to question I:

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

In reference to question H:

The WG908018-2 LCS recovery, associated with WG908018, is outside the acceptance criteria for Mercury (154%). Re-analysis of the LCS yielded an unacceptable recovery for Mercury (154%). The LCSD recovery was within acceptance criteria for this analyte; therefore, no further action was taken.

Non-MCP Related Narratives

Total Organic Carbon

The WG906640-4 MS recovery for (Rep2 - 38%), performed on L1618042-01, does not apply because the sample concentration is greater than four times the spike amount added.

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:



Elizabeth Porta

Title: Technical Director/Representative

Date: 06/30/16

ORGANICS

VOLATILES

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-01
Client ID: 04
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/26/16 12:42
Analyst: BN
Percent Solids: 31%

Date Collected: 06/13/16 10:30
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	19	--	1
1,1-Dichloroethane	ND		ug/kg	2.9	--	1
Chloroform	ND		ug/kg	2.9	--	1
Carbon tetrachloride	ND		ug/kg	1.9	--	1
1,2-Dichloropropane	ND		ug/kg	6.8	--	1
Dibromochloromethane	ND		ug/kg	1.9	--	1
1,1,2-Trichloroethane	ND		ug/kg	2.9	--	1
Tetrachloroethene	ND		ug/kg	1.9	--	1
Chlorobenzene	ND		ug/kg	1.9	--	1
Trichlorofluoromethane	ND		ug/kg	7.8	--	1
1,2-Dichloroethane	ND		ug/kg	1.9	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.9	--	1
Bromodichloromethane	ND		ug/kg	1.9	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.9	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.9	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.9	--	1
1,1-Dichloropropene	ND		ug/kg	7.8	--	1
Bromoform	ND		ug/kg	7.8	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	--	1
Benzene	ND		ug/kg	1.9	--	1
Toluene	ND		ug/kg	2.9	--	1
Ethylbenzene	ND		ug/kg	1.9	--	1
Chloromethane	ND		ug/kg	7.8	--	1
Bromomethane	ND		ug/kg	3.9	--	1
Vinyl chloride	ND		ug/kg	3.9	--	1
Chloroethane	ND		ug/kg	3.9	--	1
1,1-Dichloroethene	ND		ug/kg	1.9	--	1
trans-1,2-Dichloroethene	ND		ug/kg	2.9	--	1
Trichloroethene	ND		ug/kg	1.9	--	1
1,2-Dichlorobenzene	ND		ug/kg	7.8	--	1

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-01
Client ID: 04
Sample Location: BRAINTREE, MA

Date Collected: 06/13/16 10:30
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	7.8	--	1
1,4-Dichlorobenzene	ND		ug/kg	7.8	--	1
Methyl tert butyl ether	ND		ug/kg	3.9	--	1
p/m-Xylene	ND		ug/kg	3.9	--	1
o-Xylene	ND		ug/kg	3.9	--	1
Xylenes, Total	ND		ug/kg	3.9	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.9	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.9	--	1
Dibromomethane	ND		ug/kg	7.8	--	1
1,2,3-Trichloropropane	ND		ug/kg	7.8	--	1
Styrene	ND		ug/kg	3.9	--	1
Dichlorodifluoromethane	ND		ug/kg	19	--	1
Acetone	280		ug/kg	70	--	1
Carbon disulfide	ND		ug/kg	7.8	--	1
Methyl ethyl ketone	80		ug/kg	19	--	1
Methyl isobutyl ketone	ND		ug/kg	19	--	1
2-Hexanone	ND		ug/kg	19	--	1
Bromochloromethane	ND		ug/kg	7.8	--	1
Tetrahydrofuran	ND		ug/kg	7.8	--	1
2,2-Dichloropropane	ND		ug/kg	9.7	--	1
1,2-Dibromoethane	ND		ug/kg	7.8	--	1
1,3-Dichloropropane	ND		ug/kg	7.8	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.9	--	1
Bromobenzene	ND		ug/kg	9.7	--	1
n-Butylbenzene	ND		ug/kg	1.9	--	1
sec-Butylbenzene	ND		ug/kg	1.9	--	1
tert-Butylbenzene	ND		ug/kg	7.8	--	1
o-Chlorotoluene	ND		ug/kg	7.8	--	1
p-Chlorotoluene	ND		ug/kg	7.8	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.8	--	1
Hexachlorobutadiene	ND		ug/kg	7.8	--	1
Isopropylbenzene	ND		ug/kg	1.9	--	1
p-Isopropyltoluene	ND		ug/kg	1.9	--	1
Naphthalene	ND		ug/kg	7.8	--	1
n-Propylbenzene	ND		ug/kg	1.9	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.8	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.8	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	7.8	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	7.8	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-01
Client ID: 04
Sample Location: BRAINTREE, MA

Date Collected: 06/13/16 10:30
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	9.7	--	1
Diisopropyl Ether	ND		ug/kg	7.8	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	7.8	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	7.8	--	1
1,4-Dioxane	ND		ug/kg	78	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	102		70-130

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-02
Client ID: 05
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/26/16 13:08
Analyst: BN
Percent Solids: 32%

Date Collected: 06/13/16 11:40
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	19	--	1
1,1-Dichloroethane	ND		ug/kg	2.8	--	1
Chloroform	ND		ug/kg	2.8	--	1
Carbon tetrachloride	ND		ug/kg	1.9	--	1
1,2-Dichloropropane	ND		ug/kg	6.6	--	1
Dibromochloromethane	ND		ug/kg	1.9	--	1
1,1,2-Trichloroethane	ND		ug/kg	2.8	--	1
Tetrachloroethene	ND		ug/kg	1.9	--	1
Chlorobenzene	ND		ug/kg	1.9	--	1
Trichlorofluoromethane	ND		ug/kg	7.6	--	1
1,2-Dichloroethane	ND		ug/kg	1.9	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.9	--	1
Bromodichloromethane	ND		ug/kg	1.9	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.9	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.9	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.9	--	1
1,1-Dichloropropene	ND		ug/kg	7.6	--	1
Bromoform	ND		ug/kg	7.6	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	--	1
Benzene	ND		ug/kg	1.9	--	1
Toluene	ND		ug/kg	2.8	--	1
Ethylbenzene	ND		ug/kg	1.9	--	1
Chloromethane	ND		ug/kg	7.6	--	1
Bromomethane	ND		ug/kg	3.8	--	1
Vinyl chloride	ND		ug/kg	3.8	--	1
Chloroethane	ND		ug/kg	3.8	--	1
1,1-Dichloroethene	ND		ug/kg	1.9	--	1
trans-1,2-Dichloroethene	ND		ug/kg	2.8	--	1
Trichloroethene	ND		ug/kg	1.9	--	1
1,2-Dichlorobenzene	ND		ug/kg	7.6	--	1

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS****Lab ID:** L1618042-02**Date Collected:** 06/13/16 11:40**Client ID:** 05**Date Received:** 06/13/16**Sample Location:** BRAINTREE, MA**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	7.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	7.6	--	1
Methyl tert butyl ether	ND		ug/kg	3.8	--	1
p/m-Xylene	ND		ug/kg	3.8	--	1
o-Xylene	ND		ug/kg	3.8	--	1
Xylenes, Total	ND		ug/kg	3.8	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.9	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.9	--	1
Dibromomethane	ND		ug/kg	7.6	--	1
1,2,3-Trichloropropane	ND		ug/kg	7.6	--	1
Styrene	ND		ug/kg	3.8	--	1
Dichlorodifluoromethane	ND		ug/kg	19	--	1
Acetone	310		ug/kg	68	--	1
Carbon disulfide	ND		ug/kg	7.6	--	1
Methyl ethyl ketone	92		ug/kg	19	--	1
Methyl isobutyl ketone	ND		ug/kg	19	--	1
2-Hexanone	ND		ug/kg	19	--	1
Bromochloromethane	ND		ug/kg	7.6	--	1
Tetrahydrofuran	ND		ug/kg	7.6	--	1
2,2-Dichloropropane	ND		ug/kg	9.5	--	1
1,2-Dibromoethane	ND		ug/kg	7.6	--	1
1,3-Dichloropropane	ND		ug/kg	7.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.9	--	1
Bromobenzene	ND		ug/kg	9.5	--	1
n-Butylbenzene	ND		ug/kg	1.9	--	1
sec-Butylbenzene	ND		ug/kg	1.9	--	1
tert-Butylbenzene	ND		ug/kg	7.6	--	1
o-Chlorotoluene	ND		ug/kg	7.6	--	1
p-Chlorotoluene	ND		ug/kg	7.6	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.6	--	1
Hexachlorobutadiene	ND		ug/kg	7.6	--	1
Isopropylbenzene	ND		ug/kg	1.9	--	1
p-Isopropyltoluene	ND		ug/kg	1.9	--	1
Naphthalene	ND		ug/kg	7.6	--	1
n-Propylbenzene	ND		ug/kg	1.9	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.6	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	7.6	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	7.6	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-02
Client ID: 05
Sample Location: BRAINTREE, MA

Date Collected: 06/13/16 11:40
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	9.5	--	1
Diisopropyl Ether	ND		ug/kg	7.6	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	7.6	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	7.6	--	1
1,4-Dioxane	ND		ug/kg	76	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	106		70-130

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-03
Client ID: 08
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/26/16 13:33
Analyst: BN
Percent Solids: 21%

Date Collected: 06/13/16 14:15
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	34	--	1
1,1-Dichloroethane	ND		ug/kg	5.1	--	1
Chloroform	ND		ug/kg	5.1	--	1
Carbon tetrachloride	ND		ug/kg	3.4	--	1
1,2-Dichloropropane	ND		ug/kg	12	--	1
Dibromochloromethane	ND		ug/kg	3.4	--	1
1,1,2-Trichloroethane	ND		ug/kg	5.1	--	1
Tetrachloroethene	ND		ug/kg	3.4	--	1
Chlorobenzene	ND		ug/kg	3.4	--	1
Trichlorofluoromethane	ND		ug/kg	14	--	1
1,2-Dichloroethane	ND		ug/kg	3.4	--	1
1,1,1-Trichloroethane	ND		ug/kg	3.4	--	1
Bromodichloromethane	ND		ug/kg	3.4	--	1
trans-1,3-Dichloropropene	ND		ug/kg	3.4	--	1
cis-1,3-Dichloropropene	ND		ug/kg	3.4	--	1
1,3-Dichloropropene, Total	ND		ug/kg	3.4	--	1
1,1-Dichloropropene	ND		ug/kg	14	--	1
Bromoform	ND		ug/kg	14	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	3.4	--	1
Benzene	ND		ug/kg	3.4	--	1
Toluene	ND		ug/kg	5.1	--	1
Ethylbenzene	ND		ug/kg	3.4	--	1
Chloromethane	ND		ug/kg	14	--	1
Bromomethane	ND		ug/kg	6.8	--	1
Vinyl chloride	ND		ug/kg	6.8	--	1
Chloroethane	ND		ug/kg	6.8	--	1
1,1-Dichloroethene	ND		ug/kg	3.4	--	1
trans-1,2-Dichloroethene	ND		ug/kg	5.1	--	1
Trichloroethene	ND		ug/kg	3.4	--	1
1,2-Dichlorobenzene	ND		ug/kg	14	--	1

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-03

Date Collected: 06/13/16 14:15

Client ID: 08

Date Received: 06/13/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	14	--	1
1,4-Dichlorobenzene	ND		ug/kg	14	--	1
Methyl tert butyl ether	ND		ug/kg	6.8	--	1
p/m-Xylene	ND		ug/kg	6.8	--	1
o-Xylene	ND		ug/kg	6.8	--	1
Xylenes, Total	ND		ug/kg	6.8	--	1
cis-1,2-Dichloroethene	ND		ug/kg	3.4	--	1
1,2-Dichloroethene, Total	ND		ug/kg	3.4	--	1
Dibromomethane	ND		ug/kg	14	--	1
1,2,3-Trichloropropane	ND		ug/kg	14	--	1
Styrene	ND		ug/kg	6.8	--	1
Dichlorodifluoromethane	ND		ug/kg	34	--	1
Acetone	660		ug/kg	120	--	1
Carbon disulfide	ND		ug/kg	14	--	1
Methyl ethyl ketone	190		ug/kg	34	--	1
Methyl isobutyl ketone	ND		ug/kg	34	--	1
2-Hexanone	ND		ug/kg	34	--	1
Bromochloromethane	ND		ug/kg	14	--	1
Tetrahydrofuran	ND		ug/kg	14	--	1
2,2-Dichloropropane	ND		ug/kg	17	--	1
1,2-Dibromoethane	ND		ug/kg	14	--	1
1,3-Dichloropropane	ND		ug/kg	14	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	3.4	--	1
Bromobenzene	ND		ug/kg	17	--	1
n-Butylbenzene	ND		ug/kg	3.4	--	1
sec-Butylbenzene	ND		ug/kg	3.4	--	1
tert-Butylbenzene	ND		ug/kg	14	--	1
o-Chlorotoluene	ND		ug/kg	14	--	1
p-Chlorotoluene	ND		ug/kg	14	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	14	--	1
Hexachlorobutadiene	ND		ug/kg	14	--	1
Isopropylbenzene	ND		ug/kg	3.4	--	1
p-Isopropyltoluene	ND		ug/kg	3.4	--	1
Naphthalene	ND		ug/kg	14	--	1
n-Propylbenzene	ND		ug/kg	3.4	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	14	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	14	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	14	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	14	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-03
Client ID: 08
Sample Location: BRAINTREE, MA

Date Collected: 06/13/16 14:15
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	17	--	1
Diisopropyl Ether	ND		ug/kg	14	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	14	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	14	--	1
1,4-Dioxane	ND		ug/kg	140	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	104		70-130

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-04
Client ID: 07
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/26/16 13:59
Analyst: BN
Percent Solids: 56%

Date Collected: 06/13/16 15:00
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	7.4	--	1
1,1-Dichloroethane	ND		ug/kg	1.1	--	1
Chloroform	ND		ug/kg	1.1	--	1
Carbon tetrachloride	ND		ug/kg	0.74	--	1
1,2-Dichloropropane	ND		ug/kg	2.6	--	1
Dibromochloromethane	ND		ug/kg	0.74	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	--	1
Tetrachloroethene	ND		ug/kg	0.74	--	1
Chlorobenzene	ND		ug/kg	0.74	--	1
Trichlorofluoromethane	ND		ug/kg	3.0	--	1
1,2-Dichloroethane	ND		ug/kg	0.74	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.74	--	1
Bromodichloromethane	ND		ug/kg	0.74	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.74	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.74	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.74	--	1
1,1-Dichloropropene	ND		ug/kg	3.0	--	1
Bromoform	ND		ug/kg	3.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.74	--	1
Benzene	ND		ug/kg	0.74	--	1
Toluene	1.7		ug/kg	1.1	--	1
Ethylbenzene	ND		ug/kg	0.74	--	1
Chloromethane	ND		ug/kg	3.0	--	1
Bromomethane	ND		ug/kg	1.5	--	1
Vinyl chloride	ND		ug/kg	1.5	--	1
Chloroethane	ND		ug/kg	1.5	--	1
1,1-Dichloroethene	ND		ug/kg	0.74	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.1	--	1
Trichloroethene	ND		ug/kg	0.74	--	1
1,2-Dichlorobenzene	ND		ug/kg	3.0	--	1

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS****Lab ID:** L1618042-04**Date Collected:** 06/13/16 15:00**Client ID:** 07**Date Received:** 06/13/16**Sample Location:** BRAINTREE, MA**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	3.0	--	1
1,4-Dichlorobenzene	ND		ug/kg	3.0	--	1
Methyl tert butyl ether	ND		ug/kg	1.5	--	1
p/m-Xylene	ND		ug/kg	1.5	--	1
o-Xylene	ND		ug/kg	1.5	--	1
Xylenes, Total	ND		ug/kg	1.5	--	1
cis-1,2-Dichloroethene	ND		ug/kg	0.74	--	1
1,2-Dichloroethene, Total	ND		ug/kg	0.74	--	1
Dibromomethane	ND		ug/kg	3.0	--	1
1,2,3-Trichloropropane	ND		ug/kg	3.0	--	1
Styrene	ND		ug/kg	1.5	--	1
Dichlorodifluoromethane	ND		ug/kg	7.4	--	1
Acetone	78		ug/kg	26	--	1
Carbon disulfide	ND		ug/kg	3.0	--	1
Methyl ethyl ketone	23		ug/kg	7.4	--	1
Methyl isobutyl ketone	ND		ug/kg	7.4	--	1
2-Hexanone	ND		ug/kg	7.4	--	1
Bromochloromethane	ND		ug/kg	3.0	--	1
Tetrahydrofuran	ND		ug/kg	3.0	--	1
2,2-Dichloropropane	ND		ug/kg	3.7	--	1
1,2-Dibromoethane	ND		ug/kg	3.0	--	1
1,3-Dichloropropane	ND		ug/kg	3.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.74	--	1
Bromobenzene	ND		ug/kg	3.7	--	1
n-Butylbenzene	ND		ug/kg	0.74	--	1
sec-Butylbenzene	ND		ug/kg	0.74	--	1
tert-Butylbenzene	ND		ug/kg	3.0	--	1
o-Chlorotoluene	ND		ug/kg	3.0	--	1
p-Chlorotoluene	ND		ug/kg	3.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	--	1
Hexachlorobutadiene	ND		ug/kg	3.0	--	1
Isopropylbenzene	ND		ug/kg	0.74	--	1
p-Isopropyltoluene	ND		ug/kg	0.74	--	1
Naphthalene	ND		ug/kg	3.0	--	1
n-Propylbenzene	ND		ug/kg	0.74	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.0	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.0	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.0	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.0	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-04
Client ID: 07
Sample Location: BRAINTREE, MA

Date Collected: 06/13/16 15:00
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	3.7	--	1
Diisopropyl Ether	ND		ug/kg	3.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	3.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	3.0	--	1
1,4-Dioxane	ND		ug/kg	30	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	103		70-130

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-05
Client ID: 06
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/26/16 14:24
Analyst: BN
Percent Solids: 25%

Date Collected: 06/13/16 16:00
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	22	--	1
1,1-Dichloroethane	ND		ug/kg	3.3	--	1
Chloroform	ND		ug/kg	3.3	--	1
Carbon tetrachloride	ND		ug/kg	2.2	--	1
1,2-Dichloropropane	ND		ug/kg	7.6	--	1
Dibromochloromethane	ND		ug/kg	2.2	--	1
1,1,2-Trichloroethane	ND		ug/kg	3.3	--	1
Tetrachloroethene	ND		ug/kg	2.2	--	1
Chlorobenzene	ND		ug/kg	2.2	--	1
Trichlorofluoromethane	ND		ug/kg	8.7	--	1
1,2-Dichloroethane	ND		ug/kg	2.2	--	1
1,1,1-Trichloroethane	ND		ug/kg	2.2	--	1
Bromodichloromethane	ND		ug/kg	2.2	--	1
trans-1,3-Dichloropropene	ND		ug/kg	2.2	--	1
cis-1,3-Dichloropropene	ND		ug/kg	2.2	--	1
1,3-Dichloropropene, Total	ND		ug/kg	2.2	--	1
1,1-Dichloropropene	ND		ug/kg	8.7	--	1
Bromoform	ND		ug/kg	8.7	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.2	--	1
Benzene	ND		ug/kg	2.2	--	1
Toluene	ND		ug/kg	3.3	--	1
Ethylbenzene	ND		ug/kg	2.2	--	1
Chloromethane	ND		ug/kg	8.7	--	1
Bromomethane	ND		ug/kg	4.4	--	1
Vinyl chloride	ND		ug/kg	4.4	--	1
Chloroethane	ND		ug/kg	4.4	--	1
1,1-Dichloroethene	ND		ug/kg	2.2	--	1
trans-1,2-Dichloroethene	ND		ug/kg	3.3	--	1
Trichloroethene	ND		ug/kg	2.2	--	1
1,2-Dichlorobenzene	ND		ug/kg	8.7	--	1

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-05

Date Collected: 06/13/16 16:00

Client ID: 06

Date Received: 06/13/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	8.7	--	1
1,4-Dichlorobenzene	ND		ug/kg	8.7	--	1
Methyl tert butyl ether	ND		ug/kg	4.4	--	1
p/m-Xylene	ND		ug/kg	4.4	--	1
o-Xylene	ND		ug/kg	4.4	--	1
Xylenes, Total	ND		ug/kg	4.4	--	1
cis-1,2-Dichloroethene	ND		ug/kg	2.2	--	1
1,2-Dichloroethene, Total	ND		ug/kg	2.2	--	1
Dibromomethane	ND		ug/kg	8.7	--	1
1,2,3-Trichloropropane	ND		ug/kg	8.7	--	1
Styrene	ND		ug/kg	4.4	--	1
Dichlorodifluoromethane	ND		ug/kg	22	--	1
Acetone	400		ug/kg	79	--	1
Carbon disulfide	ND		ug/kg	8.7	--	1
Methyl ethyl ketone	98		ug/kg	22	--	1
Methyl isobutyl ketone	ND		ug/kg	22	--	1
2-Hexanone	ND		ug/kg	22	--	1
Bromochloromethane	ND		ug/kg	8.7	--	1
Tetrahydrofuran	ND		ug/kg	8.7	--	1
2,2-Dichloropropane	ND		ug/kg	11	--	1
1,2-Dibromoethane	ND		ug/kg	8.7	--	1
1,3-Dichloropropane	ND		ug/kg	8.7	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.2	--	1
Bromobenzene	ND		ug/kg	11	--	1
n-Butylbenzene	ND		ug/kg	2.2	--	1
sec-Butylbenzene	ND		ug/kg	2.2	--	1
tert-Butylbenzene	ND		ug/kg	8.7	--	1
o-Chlorotoluene	ND		ug/kg	8.7	--	1
p-Chlorotoluene	ND		ug/kg	8.7	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	8.7	--	1
Hexachlorobutadiene	ND		ug/kg	8.7	--	1
Isopropylbenzene	ND		ug/kg	2.2	--	1
p-Isopropyltoluene	ND		ug/kg	2.2	--	1
Naphthalene	ND		ug/kg	8.7	--	1
n-Propylbenzene	ND		ug/kg	2.2	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	8.7	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	8.7	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	8.7	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	8.7	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-05
Client ID: 06
Sample Location: BRAINTREE, MA

Date Collected: 06/13/16 16:00
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	11	--	1
Diisopropyl Ether	ND		ug/kg	8.7	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	8.7	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	8.7	--	1
1,4-Dioxane	ND		ug/kg	87	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-06
Client ID: 03
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/27/16 22:15
Analyst: JC
Percent Solids: 62%

Date Collected: 06/14/16 08:00
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	680	--	1
1,1-Dichloroethane	ND		ug/kg	100	--	1
Chloroform	ND		ug/kg	100	--	1
Carbon tetrachloride	ND		ug/kg	68	--	1
1,2-Dichloropropane	ND		ug/kg	240	--	1
Dibromochloromethane	ND		ug/kg	68	--	1
1,1,2-Trichloroethane	ND		ug/kg	100	--	1
Tetrachloroethene	ND		ug/kg	68	--	1
Chlorobenzene	ND		ug/kg	68	--	1
Trichlorofluoromethane	ND		ug/kg	270	--	1
1,2-Dichloroethane	ND		ug/kg	68	--	1
1,1,1-Trichloroethane	ND		ug/kg	68	--	1
Bromodichloromethane	ND		ug/kg	68	--	1
trans-1,3-Dichloropropene	ND		ug/kg	68	--	1
cis-1,3-Dichloropropene	ND		ug/kg	68	--	1
1,3-Dichloropropene, Total	ND		ug/kg	68	--	1
1,1-Dichloropropene	ND		ug/kg	270	--	1
Bromoform	ND		ug/kg	270	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	68	--	1
Benzene	ND		ug/kg	68	--	1
Toluene	ND		ug/kg	100	--	1
Ethylbenzene	ND		ug/kg	68	--	1
Chloromethane	ND		ug/kg	270	--	1
Bromomethane	ND		ug/kg	140	--	1
Vinyl chloride	ND		ug/kg	140	--	1
Chloroethane	ND		ug/kg	140	--	1
1,1-Dichloroethene	ND		ug/kg	68	--	1
trans-1,2-Dichloroethene	ND		ug/kg	100	--	1
Trichloroethene	ND		ug/kg	68	--	1
1,2-Dichlorobenzene	ND		ug/kg	270	--	1

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-06

Date Collected: 06/14/16 08:00

Client ID: 03

Date Received: 06/14/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	270	--	1
1,4-Dichlorobenzene	ND		ug/kg	270	--	1
Methyl tert butyl ether	ND		ug/kg	140	--	1
p/m-Xylene	ND		ug/kg	140	--	1
o-Xylene	ND		ug/kg	140	--	1
Xylenes, Total	ND		ug/kg	140	--	1
cis-1,2-Dichloroethene	ND		ug/kg	68	--	1
1,2-Dichloroethene, Total	ND		ug/kg	68	--	1
Dibromomethane	ND		ug/kg	270	--	1
1,2,3-Trichloropropane	ND		ug/kg	270	--	1
Styrene	ND		ug/kg	140	--	1
Dichlorodifluoromethane	ND		ug/kg	680	--	1
Acetone	ND		ug/kg	2400	--	1
Carbon disulfide	ND		ug/kg	270	--	1
Methyl ethyl ketone	ND		ug/kg	680	--	1
Methyl isobutyl ketone	ND		ug/kg	680	--	1
2-Hexanone	ND		ug/kg	680	--	1
Bromochloromethane	ND		ug/kg	270	--	1
Tetrahydrofuran	ND		ug/kg	270	--	1
2,2-Dichloropropane	ND		ug/kg	340	--	1
1,2-Dibromoethane	ND		ug/kg	270	--	1
1,3-Dichloropropane	ND		ug/kg	270	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	68	--	1
Bromobenzene	ND		ug/kg	340	--	1
n-Butylbenzene	ND		ug/kg	68	--	1
sec-Butylbenzene	ND		ug/kg	68	--	1
tert-Butylbenzene	ND		ug/kg	270	--	1
o-Chlorotoluene	ND		ug/kg	270	--	1
p-Chlorotoluene	ND		ug/kg	270	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	270	--	1
Hexachlorobutadiene	ND		ug/kg	270	--	1
Isopropylbenzene	ND		ug/kg	68	--	1
p-Isopropyltoluene	ND		ug/kg	68	--	1
Naphthalene	ND		ug/kg	270	--	1
n-Propylbenzene	ND		ug/kg	68	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	270	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	270	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	270	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	270	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-06
Client ID: 03
Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 08:00
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	340	--	1
Diisopropyl Ether	ND		ug/kg	270	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	270	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	270	--	1
1,4-Dioxane	ND		ug/kg	6800	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	92		70-130

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-07
Client ID: 02
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/27/16 20:27
Analyst: JC
Percent Solids: 44%

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	--	1
1,1-Dichloroethane	ND		ug/kg	1.7	--	1
Chloroform	ND		ug/kg	1.7	--	1
Carbon tetrachloride	ND		ug/kg	1.1	--	1
1,2-Dichloropropane	ND		ug/kg	4.0	--	1
Dibromochloromethane	ND		ug/kg	1.1	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	--	1
Tetrachloroethene	ND		ug/kg	1.1	--	1
Chlorobenzene	ND		ug/kg	1.1	--	1
Trichlorofluoromethane	ND		ug/kg	4.5	--	1
1,2-Dichloroethane	ND		ug/kg	1.1	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	--	1
Bromodichloromethane	ND		ug/kg	1.1	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	--	1
1,1-Dichloropropene	ND		ug/kg	4.5	--	1
Bromoform	ND		ug/kg	4.5	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	--	1
Benzene	ND		ug/kg	1.1	--	1
Toluene	ND		ug/kg	1.7	--	1
Ethylbenzene	ND		ug/kg	1.1	--	1
Chloromethane	ND		ug/kg	4.5	--	1
Bromomethane	ND		ug/kg	2.3	--	1
Vinyl chloride	ND		ug/kg	2.3	--	1
Chloroethane	ND		ug/kg	2.3	--	1
1,1-Dichloroethene	ND		ug/kg	1.1	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	--	1
Trichloroethene	ND		ug/kg	1.1	--	1
1,2-Dichlorobenzene	ND		ug/kg	4.5	--	1

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS****Lab ID:** L1618042-07**Date Collected:** 06/14/16 08:45**Client ID:** 02**Date Received:** 06/14/16**Sample Location:** BRAINTREE, MA**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	4.5	--	1
1,4-Dichlorobenzene	ND		ug/kg	4.5	--	1
Methyl tert butyl ether	ND		ug/kg	2.3	--	1
p/m-Xylene	ND		ug/kg	2.3	--	1
o-Xylene	ND		ug/kg	2.3	--	1
Xylenes, Total	ND		ug/kg	2.3	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	--	1
Dibromomethane	ND		ug/kg	4.5	--	1
1,2,3-Trichloropropane	ND		ug/kg	4.5	--	1
Styrene	ND		ug/kg	2.3	--	1
Dichlorodifluoromethane	ND		ug/kg	11	--	1
Acetone	440	E	ug/kg	41	--	1
Carbon disulfide	ND		ug/kg	4.5	--	1
Methyl ethyl ketone	110		ug/kg	11	--	1
Methyl isobutyl ketone	ND		ug/kg	11	--	1
2-Hexanone	ND		ug/kg	11	--	1
Bromochloromethane	ND		ug/kg	4.5	--	1
Tetrahydrofuran	ND		ug/kg	4.5	--	1
2,2-Dichloropropane	ND		ug/kg	5.7	--	1
1,2-Dibromoethane	ND		ug/kg	4.5	--	1
1,3-Dichloropropane	ND		ug/kg	4.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	--	1
Bromobenzene	ND		ug/kg	5.7	--	1
n-Butylbenzene	ND		ug/kg	1.1	--	1
sec-Butylbenzene	ND		ug/kg	1.1	--	1
tert-Butylbenzene	ND		ug/kg	4.5	--	1
o-Chlorotoluene	ND		ug/kg	4.5	--	1
p-Chlorotoluene	ND		ug/kg	4.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.5	--	1
Hexachlorobutadiene	ND		ug/kg	4.5	--	1
Isopropylbenzene	ND		ug/kg	1.1	--	1
p-Isopropyltoluene	ND		ug/kg	1.1	--	1
Naphthalene	ND		ug/kg	4.5	--	1
n-Propylbenzene	ND		ug/kg	1.1	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	4.5	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	4.5	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	4.5	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	4.5	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-07
Client ID: 02
Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	5.7	--	1
Diisopropyl Ether	ND		ug/kg	4.5	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.5	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.5	--	1
1,4-Dioxane	ND		ug/kg	45	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	98		70-130

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-07
Client ID: 02
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/28/16 14:01
Analyst: BN
Percent Solids: 44%

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1300	--	1
1,1-Dichloroethane	ND		ug/kg	200	--	1
Chloroform	ND		ug/kg	200	--	1
Carbon tetrachloride	ND		ug/kg	130	--	1
1,2-Dichloropropane	ND		ug/kg	460	--	1
Dibromochloromethane	ND		ug/kg	130	--	1
1,1,2-Trichloroethane	ND		ug/kg	200	--	1
Tetrachloroethene	ND		ug/kg	130	--	1
Chlorobenzene	ND		ug/kg	130	--	1
Trichlorofluoromethane	ND		ug/kg	520	--	1
1,2-Dichloroethane	ND		ug/kg	130	--	1
1,1,1-Trichloroethane	ND		ug/kg	130	--	1
Bromodichloromethane	ND		ug/kg	130	--	1
trans-1,3-Dichloropropene	ND		ug/kg	130	--	1
cis-1,3-Dichloropropene	ND		ug/kg	130	--	1
1,3-Dichloropropene, Total	ND		ug/kg	130	--	1
1,1-Dichloropropene	ND		ug/kg	520	--	1
Bromoform	ND		ug/kg	520	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	130	--	1
Benzene	ND		ug/kg	130	--	1
Toluene	ND		ug/kg	200	--	1
Ethylbenzene	ND		ug/kg	130	--	1
Chloromethane	ND		ug/kg	520	--	1
Bromomethane	ND		ug/kg	260	--	1
Vinyl chloride	ND		ug/kg	260	--	1
Chloroethane	ND		ug/kg	260	--	1
1,1-Dichloroethene	ND		ug/kg	130	--	1
trans-1,2-Dichloroethene	ND		ug/kg	200	--	1
Trichloroethene	ND		ug/kg	130	--	1
1,2-Dichlorobenzene	ND		ug/kg	520	--	1

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS****Lab ID:** L1618042-07**Date Collected:** 06/14/16 08:45**Client ID:** 02**Date Received:** 06/14/16**Sample Location:** BRAINTREE, MA**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	520	--	1
1,4-Dichlorobenzene	ND		ug/kg	520	--	1
Methyl tert butyl ether	ND		ug/kg	260	--	1
p/m-Xylene	ND		ug/kg	260	--	1
o-Xylene	ND		ug/kg	260	--	1
Xylenes, Total	ND		ug/kg	260	--	1
cis-1,2-Dichloroethene	ND		ug/kg	130	--	1
1,2-Dichloroethene, Total	ND		ug/kg	130	--	1
Dibromomethane	ND		ug/kg	520	--	1
1,2,3-Trichloropropane	ND		ug/kg	520	--	1
Styrene	ND		ug/kg	260	--	1
Dichlorodifluoromethane	ND		ug/kg	1300	--	1
Acetone	ND		ug/kg	4700	--	1
Carbon disulfide	ND		ug/kg	520	--	1
Methyl ethyl ketone	ND		ug/kg	1300	--	1
Methyl isobutyl ketone	ND		ug/kg	1300	--	1
2-Hexanone	ND		ug/kg	1300	--	1
Bromochloromethane	ND		ug/kg	520	--	1
Tetrahydrofuran	ND		ug/kg	520	--	1
2,2-Dichloropropane	ND		ug/kg	660	--	1
1,2-Dibromoethane	ND		ug/kg	520	--	1
1,3-Dichloropropane	ND		ug/kg	520	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	130	--	1
Bromobenzene	ND		ug/kg	660	--	1
n-Butylbenzene	ND		ug/kg	130	--	1
sec-Butylbenzene	ND		ug/kg	130	--	1
tert-Butylbenzene	ND		ug/kg	520	--	1
o-Chlorotoluene	ND		ug/kg	520	--	1
p-Chlorotoluene	ND		ug/kg	520	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	520	--	1
Hexachlorobutadiene	ND		ug/kg	520	--	1
Isopropylbenzene	ND		ug/kg	130	--	1
p-Isopropyltoluene	ND		ug/kg	130	--	1
Naphthalene	ND		ug/kg	520	--	1
n-Propylbenzene	ND		ug/kg	130	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	520	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	520	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	520	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	520	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-07
Client ID: 02
Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
Diethyl ether	ND		ug/kg	660	--	1
Diisopropyl Ether	ND		ug/kg	520	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	520	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	520	--	1
1,4-Dioxane	ND		ug/kg	13000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	104		70-130

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-08
Client ID: 09
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/28/16 14:44
Analyst: BN
Percent Solids: 50%

Date Collected: 06/14/16 10:30
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	11	--	1
1,1-Dichloroethane	ND		ug/kg	1.6	--	1
Chloroform	ND		ug/kg	1.6	--	1
Carbon tetrachloride	ND		ug/kg	1.1	--	1
1,2-Dichloropropane	ND		ug/kg	3.8	--	1
Dibromochloromethane	ND		ug/kg	1.1	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	--	1
Tetrachloroethene	ND		ug/kg	1.1	--	1
Chlorobenzene	ND		ug/kg	1.1	--	1
Trichlorofluoromethane	ND		ug/kg	4.3	--	1
1,2-Dichloroethane	ND		ug/kg	1.1	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	--	1
Bromodichloromethane	ND		ug/kg	1.1	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.1	--	1
1,1-Dichloropropene	ND		ug/kg	4.3	--	1
Bromoform	ND		ug/kg	4.3	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	--	1
Benzene	ND		ug/kg	1.1	--	1
Toluene	ND		ug/kg	1.6	--	1
Ethylbenzene	ND		ug/kg	1.1	--	1
Chloromethane	ND		ug/kg	4.3	--	1
Bromomethane	ND		ug/kg	2.2	--	1
Vinyl chloride	ND		ug/kg	2.2	--	1
Chloroethane	ND		ug/kg	2.2	--	1
1,1-Dichloroethene	ND		ug/kg	1.1	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	--	1
Trichloroethene	ND		ug/kg	1.1	--	1
1,2-Dichlorobenzene	ND		ug/kg	4.3	--	1

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-08
 Client ID: 09
 Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 10:30
 Date Received: 06/14/16
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	4.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	4.3	--	1
Methyl tert butyl ether	ND		ug/kg	2.2	--	1
p/m-Xylene	ND		ug/kg	2.2	--	1
o-Xylene	ND		ug/kg	2.2	--	1
Xylenes, Total	ND		ug/kg	2.2	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	--	1
Dibromomethane	ND		ug/kg	4.3	--	1
1,2,3-Trichloropropane	ND		ug/kg	4.3	--	1
Styrene	ND		ug/kg	2.2	--	1
Dichlorodifluoromethane	ND		ug/kg	11	--	1
Acetone	270		ug/kg	39	--	1
Carbon disulfide	ND		ug/kg	4.3	--	1
Methyl ethyl ketone	82		ug/kg	11	--	1
Methyl isobutyl ketone	ND		ug/kg	11	--	1
2-Hexanone	ND		ug/kg	11	--	1
Bromochloromethane	ND		ug/kg	4.3	--	1
Tetrahydrofuran	ND		ug/kg	4.3	--	1
2,2-Dichloropropane	ND		ug/kg	5.4	--	1
1,2-Dibromoethane	ND		ug/kg	4.3	--	1
1,3-Dichloropropane	ND		ug/kg	4.3	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	--	1
Bromobenzene	ND		ug/kg	5.4	--	1
n-Butylbenzene	ND		ug/kg	1.1	--	1
sec-Butylbenzene	ND		ug/kg	1.1	--	1
tert-Butylbenzene	ND		ug/kg	4.3	--	1
o-Chlorotoluene	ND		ug/kg	4.3	--	1
p-Chlorotoluene	ND		ug/kg	4.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.3	--	1
Hexachlorobutadiene	ND		ug/kg	4.3	--	1
Isopropylbenzene	1.4		ug/kg	1.1	--	1
p-Isopropyltoluene	ND		ug/kg	1.1	--	1
Naphthalene	ND		ug/kg	4.3	--	1
n-Propylbenzene	ND		ug/kg	1.1	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	4.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	4.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	4.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	4.3	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-08
Client ID: 09
Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 10:30
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	5.4	--	1
Diisopropyl Ether	ND		ug/kg	4.3	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.3	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.3	--	1
1,4-Dioxane	ND		ug/kg	43	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	120		70-130
Dibromofluoromethane	99		70-130

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-11
Client ID: 01
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8260C
Analytical Date: 06/27/16 20:54
Analyst: JC
Percent Solids: 37%

Date Collected: 06/14/16 15:00
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	15	--	1
1,1-Dichloroethane	ND		ug/kg	2.3	--	1
Chloroform	ND		ug/kg	2.3	--	1
Carbon tetrachloride	ND		ug/kg	1.5	--	1
1,2-Dichloropropane	ND		ug/kg	5.4	--	1
Dibromochloromethane	ND		ug/kg	1.5	--	1
1,1,2-Trichloroethane	ND		ug/kg	2.3	--	1
Tetrachloroethene	ND		ug/kg	1.5	--	1
Chlorobenzene	ND		ug/kg	1.5	--	1
Trichlorofluoromethane	ND		ug/kg	6.1	--	1
1,2-Dichloroethane	ND		ug/kg	1.5	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.5	--	1
Bromodichloromethane	ND		ug/kg	1.5	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.5	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.5	--	1
1,1-Dichloropropene	ND		ug/kg	6.1	--	1
Bromoform	ND		ug/kg	6.1	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.5	--	1
Benzene	ND		ug/kg	1.5	--	1
Toluene	ND		ug/kg	2.3	--	1
Ethylbenzene	ND		ug/kg	1.5	--	1
Chloromethane	ND		ug/kg	6.1	--	1
Bromomethane	ND		ug/kg	3.1	--	1
Vinyl chloride	ND		ug/kg	3.1	--	1
Chloroethane	ND		ug/kg	3.1	--	1
1,1-Dichloroethene	ND		ug/kg	1.5	--	1
trans-1,2-Dichloroethene	ND		ug/kg	2.3	--	1
Trichloroethene	ND		ug/kg	1.5	--	1
1,2-Dichlorobenzene	ND		ug/kg	6.1	--	1

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS****Lab ID:** L1618042-11**Date Collected:** 06/14/16 15:00**Client ID:** 01**Date Received:** 06/14/16**Sample Location:** BRAINTREE, MA**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	6.1	--	1
1,4-Dichlorobenzene	ND		ug/kg	6.1	--	1
Methyl tert butyl ether	ND		ug/kg	3.1	--	1
p/m-Xylene	ND		ug/kg	3.1	--	1
o-Xylene	ND		ug/kg	3.1	--	1
Xylenes, Total	ND		ug/kg	3.1	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.5	--	1
Dibromomethane	ND		ug/kg	6.1	--	1
1,2,3-Trichloropropane	ND		ug/kg	6.1	--	1
Styrene	ND		ug/kg	3.1	--	1
Dichlorodifluoromethane	ND		ug/kg	15	--	1
Acetone	300		ug/kg	55	--	1
Carbon disulfide	ND		ug/kg	6.1	--	1
Methyl ethyl ketone	73		ug/kg	15	--	1
Methyl isobutyl ketone	ND		ug/kg	15	--	1
2-Hexanone	ND		ug/kg	15	--	1
Bromochloromethane	ND		ug/kg	6.1	--	1
Tetrahydrofuran	ND		ug/kg	6.1	--	1
2,2-Dichloropropane	ND		ug/kg	7.6	--	1
1,2-Dibromoethane	ND		ug/kg	6.1	--	1
1,3-Dichloropropane	ND		ug/kg	6.1	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.5	--	1
Bromobenzene	ND		ug/kg	7.6	--	1
n-Butylbenzene	ND		ug/kg	1.5	--	1
sec-Butylbenzene	ND		ug/kg	1.5	--	1
tert-Butylbenzene	ND		ug/kg	6.1	--	1
o-Chlorotoluene	ND		ug/kg	6.1	--	1
p-Chlorotoluene	ND		ug/kg	6.1	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.1	--	1
Hexachlorobutadiene	ND		ug/kg	6.1	--	1
Isopropylbenzene	16		ug/kg	1.5	--	1
p-Isopropyltoluene	ND		ug/kg	1.5	--	1
Naphthalene	ND		ug/kg	6.1	--	1
n-Propylbenzene	ND		ug/kg	1.5	--	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.1	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.1	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.1	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.1	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-11
Client ID: 01
Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 15:00
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Diethyl ether	ND		ug/kg	7.6	--	1
Diisopropyl Ether	ND		ug/kg	6.1	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	6.1	--	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	6.1	--	1
1,4-Dioxane	ND		ug/kg	61	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	97		70-130

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/26/16 08:28
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-05 Batch: WG907917-3					
Methylene chloride	ND		ug/kg	10	--
1,1-Dichloroethane	ND		ug/kg	1.5	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	3.5	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.5	--
Tetrachloroethene	ND		ug/kg	1.0	--
Chlorobenzene	ND		ug/kg	1.0	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	1.0	--
Bromodichloromethane	ND		ug/kg	1.0	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--
1,1-Dichloropropene	ND		ug/kg	4.0	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--
Benzene	ND		ug/kg	1.0	--
Toluene	ND		ug/kg	1.5	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	2.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	1.0	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/26/16 08:28
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-05 Batch: WG907917-3					
1,2-Dichlorobenzene	ND		ug/kg	4.0	--
1,3-Dichlorobenzene	ND		ug/kg	4.0	--
1,4-Dichlorobenzene	ND		ug/kg	4.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	2.0	--
Xylenes, Total	ND		ug/kg	2.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	4.0	--
1,2,3-Trichloropropane	ND		ug/kg	4.0	--
Styrene	ND		ug/kg	2.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	36	--
Carbon disulfide	ND		ug/kg	4.0	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	4.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	5.0	--
1,2-Dibromoethane	ND		ug/kg	4.0	--
1,3-Dichloropropane	ND		ug/kg	4.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--
Bromobenzene	ND		ug/kg	5.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	4.0	--
o-Chlorotoluene	ND		ug/kg	4.0	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/26/16 08:28
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01-05 Batch: WG907917-3					
p-Chlorotoluene	ND		ug/kg	4.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	4.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	4.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	4.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	4.0	--
Diethyl ether	ND		ug/kg	5.0	--
Diisopropyl Ether	ND		ug/kg	4.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	--
1,4-Dioxane	ND		ug/kg	40	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	99		70-130

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/27/16 13:12
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 5035 High - Westborough Lab for sample(s): 06 Batch: WG908079-3					
Methylene chloride	ND		ug/kg	500	--
1,1-Dichloroethane	ND		ug/kg	75	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	180	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	75	--
Tetrachloroethene	ND		ug/kg	50	--
Chlorobenzene	ND		ug/kg	50	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	50	--
Bromodichloromethane	ND		ug/kg	50	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	50	--
1,3-Dichloropropene, Total	ND		ug/kg	50	--
1,1-Dichloropropene	ND		ug/kg	200	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--
Benzene	ND		ug/kg	50	--
Toluene	ND		ug/kg	75	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	100	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	50	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/27/16 13:12
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 5035 High - Westborough Lab for sample(s): 06 Batch: WG908079-3					
1,2-Dichlorobenzene	ND		ug/kg	200	--
1,3-Dichlorobenzene	ND		ug/kg	200	--
1,4-Dichlorobenzene	ND		ug/kg	200	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
Xylenes, Total	ND		ug/kg	100	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	200	--
1,2,3-Trichloropropane	ND		ug/kg	200	--
Styrene	ND		ug/kg	100	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	1800	--
Carbon disulfide	ND		ug/kg	200	--
Methyl ethyl ketone	ND		ug/kg	500	--
Methyl isobutyl ketone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	200	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	250	--
1,2-Dibromoethane	ND		ug/kg	200	--
1,3-Dichloropropane	ND		ug/kg	200	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--
Bromobenzene	ND		ug/kg	250	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	200	--
o-Chlorotoluene	ND		ug/kg	200	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/27/16 13:12
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 5035 High - Westborough Lab for sample(s): 06 Batch: WG908079-3					
p-Chlorotoluene	ND		ug/kg	200	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	200	--
1,2,4-Trichlorobenzene	ND		ug/kg	200	--
1,3,5-Trimethylbenzene	ND		ug/kg	200	--
1,2,4-Trimethylbenzene	ND		ug/kg	200	--
Diethyl ether	ND		ug/kg	250	--
Diisopropyl Ether	ND		ug/kg	200	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	--
1,4-Dioxane	ND		ug/kg	5000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	94		70-130

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/27/16 13:12
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07,11 Batch: WG908330-3					
Methylene chloride	ND		ug/kg	10	--
1,1-Dichloroethane	ND		ug/kg	1.5	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	3.5	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.5	--
Tetrachloroethene	ND		ug/kg	1.0	--
Chlorobenzene	ND		ug/kg	1.0	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	1.0	--
Bromodichloromethane	ND		ug/kg	1.0	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--
1,1-Dichloropropene	ND		ug/kg	4.0	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--
Benzene	ND		ug/kg	1.0	--
Toluene	ND		ug/kg	1.5	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	2.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	1.0	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/27/16 13:12
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07,11 Batch: WG908330-3					
1,2-Dichlorobenzene	ND		ug/kg	4.0	--
1,3-Dichlorobenzene	ND		ug/kg	4.0	--
1,4-Dichlorobenzene	ND		ug/kg	4.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	2.0	--
Xylenes, Total	ND		ug/kg	2.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	4.0	--
1,2,3-Trichloropropane	ND		ug/kg	4.0	--
Styrene	ND		ug/kg	2.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	36	--
Carbon disulfide	ND		ug/kg	4.0	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	4.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	5.0	--
1,2-Dibromoethane	ND		ug/kg	4.0	--
1,3-Dichloropropane	ND		ug/kg	4.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--
Bromobenzene	ND		ug/kg	5.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	4.0	--
o-Chlorotoluene	ND		ug/kg	4.0	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/27/16 13:12
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07,11 Batch: WG908330-3					
p-Chlorotoluene	ND		ug/kg	4.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	4.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	4.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	4.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	4.0	--
Diethyl ether	ND		ug/kg	5.0	--
Diisopropyl Ether	ND		ug/kg	4.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	--
1,4-Dioxane	ND		ug/kg	40	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	94		70-130

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/28/16 08:48
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 08 Batch: WG908421-3					
Methylene chloride	ND		ug/kg	10	--
1,1-Dichloroethane	ND		ug/kg	1.5	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	3.5	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.5	--
Tetrachloroethene	ND		ug/kg	1.0	--
Chlorobenzene	ND		ug/kg	1.0	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	1.0	--
Bromodichloromethane	ND		ug/kg	1.0	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--
1,1-Dichloropropene	ND		ug/kg	4.0	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--
Benzene	ND		ug/kg	1.0	--
Toluene	ND		ug/kg	1.5	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	2.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	1.0	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/28/16 08:48
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 08 Batch: WG908421-3					
1,2-Dichlorobenzene	ND		ug/kg	4.0	--
1,3-Dichlorobenzene	ND		ug/kg	4.0	--
1,4-Dichlorobenzene	ND		ug/kg	4.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	2.0	--
Xylenes, Total	ND		ug/kg	2.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	4.0	--
1,2,3-Trichloropropane	ND		ug/kg	4.0	--
Styrene	ND		ug/kg	2.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	36	--
Carbon disulfide	ND		ug/kg	4.0	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	4.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	5.0	--
1,2-Dibromoethane	ND		ug/kg	4.0	--
1,3-Dichloropropane	ND		ug/kg	4.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--
Bromobenzene	ND		ug/kg	5.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	4.0	--
o-Chlorotoluene	ND		ug/kg	4.0	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/28/16 08:48
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 08 Batch: WG908421-3					
p-Chlorotoluene	ND		ug/kg	4.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	4.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	4.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	4.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	4.0	--
Diethyl ether	ND		ug/kg	5.0	--
Diisopropyl Ether	ND		ug/kg	4.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	--
1,4-Dioxane	ND		ug/kg	40	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	70		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	97		70-130

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/28/16 08:50
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG908456-3					
Methylene chloride	ND		ug/kg	500	--
1,1-Dichloroethane	ND		ug/kg	75	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	180	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	75	--
Tetrachloroethene	ND		ug/kg	50	--
Chlorobenzene	ND		ug/kg	50	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	50	--
Bromodichloromethane	ND		ug/kg	50	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	50	--
1,3-Dichloropropene, Total	ND		ug/kg	50	--
1,1-Dichloropropene	ND		ug/kg	200	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--
Benzene	ND		ug/kg	50	--
Toluene	ND		ug/kg	75	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	100	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	50	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/28/16 08:50
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG908456-3					
1,2-Dichlorobenzene	ND		ug/kg	200	--
1,3-Dichlorobenzene	ND		ug/kg	200	--
1,4-Dichlorobenzene	ND		ug/kg	200	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
Xylenes, Total	ND		ug/kg	100	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	200	--
1,2,3-Trichloropropane	ND		ug/kg	200	--
Styrene	ND		ug/kg	100	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	1800	--
Carbon disulfide	ND		ug/kg	200	--
Methyl ethyl ketone	ND		ug/kg	500	--
Methyl isobutyl ketone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	200	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	250	--
1,2-Dibromoethane	ND		ug/kg	200	--
1,3-Dichloropropane	ND		ug/kg	200	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--
Bromobenzene	ND		ug/kg	250	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	200	--
o-Chlorotoluene	ND		ug/kg	200	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 06/28/16 08:50
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 07 Batch: WG908456-3					
p-Chlorotoluene	ND		ug/kg	200	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	200	--
1,2,4-Trichlorobenzene	ND		ug/kg	200	--
1,3,5-Trimethylbenzene	ND		ug/kg	200	--
1,2,4-Trimethylbenzene	ND		ug/kg	200	--
Diethyl ether	ND		ug/kg	250	--
Diisopropyl Ether	ND		ug/kg	200	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	--
1,4-Dioxane	ND		ug/kg	5000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG907917-1 WG907917-2								
Methylene chloride	91		91		70-130	0		20
1,1-Dichloroethane	88		87		70-130	1		20
Chloroform	91		92		70-130	1		20
Carbon tetrachloride	102		99		70-130	3		20
1,2-Dichloropropane	87		88		70-130	1		20
Dibromochloromethane	95		97		70-130	2		20
1,1,2-Trichloroethane	90		93		70-130	3		20
Tetrachloroethene	113		107		70-130	5		20
Chlorobenzene	100		98		70-130	2		20
Trichlorofluoromethane	104		98		70-130	6		20
1,2-Dichloroethane	80		82		70-130	2		20
1,1,1-Trichloroethane	96		94		70-130	2		20
Bromodichloromethane	86		90		70-130	5		20
trans-1,3-Dichloropropene	89		89		70-130	0		20
cis-1,3-Dichloropropene	89		91		70-130	2		20
1,1-Dichloropropene	96		95		70-130	1		20
Bromoform	103		104		70-130	1		20
1,1,2,2-Tetrachloroethane	90		92		70-130	2		20
Benzene	92		92		70-130	0		20
Toluene	96		94		70-130	2		20
Ethylbenzene	96		95		70-130	1		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG907917-1 WG907917-2								
Chloromethane	85		83		70-130	2		20
Bromomethane	104		100		70-130	4		20
Vinyl chloride	94		90		70-130	4		20
Chloroethane	95		92		70-130	3		20
1,1-Dichloroethene	102		98		70-130	4		20
trans-1,2-Dichloroethene	96		94		70-130	2		20
Trichloroethene	96		96		70-130	0		20
1,2-Dichlorobenzene	99		100		70-130	1		20
1,3-Dichlorobenzene	101		101		70-130	0		20
1,4-Dichlorobenzene	100		101		70-130	1		20
Methyl tert butyl ether	80		80		70-130	0		20
p/m-Xylene	100		99		70-130	1		20
o-Xylene	99		97		70-130	2		20
cis-1,2-Dichloroethene	95		95		70-130	0		20
Dibromomethane	91		92		70-130	1		20
1,2,3-Trichloropropane	85		88		70-130	3		20
Styrene	101		100		70-130	1		20
Dichlorodifluoromethane	93		92		70-130	1		20
Acetone	84		79		70-130	6		20
Carbon disulfide	78		75		70-130	4		20
Methyl ethyl ketone	80		84		70-130	5		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG907917-1 WG907917-2								
Methyl isobutyl ketone	73		76		70-130	4		20
2-Hexanone	70		71		70-130	1		20
Bromochloromethane	101		102		70-130	1		20
Tetrahydrofuran	73		71		70-130	3		20
2,2-Dichloropropane	94		93		70-130	1		20
1,2-Dibromoethane	96		95		70-130	1		20
1,3-Dichloropropane	90		90		70-130	0		20
1,1,1,2-Tetrachloroethane	102		102		70-130	0		20
Bromobenzene	100		102		70-130	2		20
n-Butylbenzene	100		98		70-130	2		20
sec-Butylbenzene	101		100		70-130	1		20
tert-Butylbenzene	100		98		70-130	2		20
o-Chlorotoluene	93		92		70-130	1		20
p-Chlorotoluene	92		93		70-130	1		20
1,2-Dibromo-3-chloropropane	94		99		70-130	5		20
Hexachlorobutadiene	117		114		70-130	3		20
Isopropylbenzene	100		96		70-130	4		20
p-Isopropyltoluene	101		100		70-130	1		20
Naphthalene	94		96		70-130	2		20
n-Propylbenzene	100		98		70-130	2		20
1,2,3-Trichlorobenzene	106		108		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01-05 Batch: WG907917-1 WG907917-2								
1,2,4-Trichlorobenzene	109		109		70-130	0		20
1,3,5-Trimethylbenzene	97		96		70-130	1		20
1,2,4-Trimethylbenzene	96		96		70-130	0		20
Diethyl ether	82		83		70-130	1		20
Diisopropyl Ether	69	Q	70		70-130	1		20
Ethyl-Tert-Butyl-Ether	74		76		70-130	3		20
Tertiary-Amyl Methyl Ether	78		80		70-130	3		20
1,4-Dioxane	73		73		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	89		91		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	91		91		70-130
Dibromofluoromethane	102		104		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG908079-1 WG908079-2								
Methylene chloride	103		99		70-130	4		20
1,1-Dichloroethane	106		102		70-130	4		20
Chloroform	100		99		70-130	1		20
Carbon tetrachloride	92		88		70-130	4		20
1,2-Dichloropropane	104		104		70-130	0		20
Dibromochloromethane	88		88		70-130	0		20
1,1,2-Trichloroethane	97		98		70-130	1		20
Tetrachloroethene	78		75		70-130	4		20
Chlorobenzene	86		84		70-130	2		20
Trichlorofluoromethane	72		68	Q	70-130	6		20
1,2-Dichloroethane	109		112		70-130	3		20
1,1,1-Trichloroethane	94		90		70-130	4		20
Bromodichloromethane	101		100		70-130	1		20
trans-1,3-Dichloropropene	93		95		70-130	2		20
cis-1,3-Dichloropropene	98		99		70-130	1		20
1,1-Dichloropropene	96		91		70-130	5		20
Bromoform	85		89		70-130	5		20
1,1,2,2-Tetrachloroethane	93		97		70-130	4		20
Benzene	98		96		70-130	2		20
Toluene	85		82		70-130	4		20
Ethylbenzene	86		83		70-130	4		20

Lab Control Sample Analysis Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG908079-1 WG908079-2								
Chloromethane	100		95		70-130	5		20
Bromomethane	76		72		70-130	5		20
Vinyl chloride	85		78		70-130	9		20
Chloroethane	80		74		70-130	8		20
1,1-Dichloroethene	94		88		70-130	7		20
trans-1,2-Dichloroethene	93		90		70-130	3		20
Trichloroethene	95		92		70-130	3		20
1,2-Dichlorobenzene	80		81		70-130	1		20
1,3-Dichlorobenzene	81		80		70-130	1		20
1,4-Dichlorobenzene	82		82		70-130	0		20
Methyl tert butyl ether	100		103		70-130	3		20
p/m-Xylene	85		81		70-130	5		20
o-Xylene	84		81		70-130	4		20
cis-1,2-Dichloroethene	94		92		70-130	2		20
Dibromomethane	98		102		70-130	4		20
1,2,3-Trichloropropane	92		99		70-130	7		20
Styrene	86		83		70-130	4		20
Dichlorodifluoromethane	80		73		70-130	9		20
Acetone	133	Q	139	Q	70-130	4		20
Carbon disulfide	104		96		70-130	8		20
Methyl ethyl ketone	117		123		70-130	5		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG908079-1 WG908079-2								
Methyl isobutyl ketone	99		106		70-130	7		20
2-Hexanone	94		100		70-130	6		20
Bromochloromethane	95		95		70-130	0		20
Tetrahydrofuran	114		118		70-130	3		20
2,2-Dichloropropane	97		93		70-130	4		20
1,2-Dibromoethane	87		91		70-130	4		20
1,3-Dichloropropane	95		97		70-130	2		20
1,1,1,2-Tetrachloroethane	87		85		70-130	2		20
Bromobenzene	80		80		70-130	0		20
n-Butylbenzene	83		80		70-130	4		20
sec-Butylbenzene	81		78		70-130	4		20
tert-Butylbenzene	78		76		70-130	3		20
o-Chlorotoluene	88		86		70-130	2		20
p-Chlorotoluene	87		86		70-130	1		20
1,2-Dibromo-3-chloropropane	80		84		70-130	5		20
Hexachlorobutadiene	69	Q	68	Q	70-130	1		20
Isopropylbenzene	79		78		70-130	1		20
p-Isopropyltoluene	78		75		70-130	4		20
Naphthalene	74		78		70-130	5		20
n-Propylbenzene	84		82		70-130	2		20
1,2,3-Trichlorobenzene	74		77		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG908079-1 WG908079-2								
1,2,4-Trichlorobenzene	74		74		70-130	0		20
1,3,5-Trimethylbenzene	84		82		70-130	2		20
1,2,4-Trimethylbenzene	83		81		70-130	2		20
Diethyl ether	86		86		70-130	0		20
Diisopropyl Ether	115		116		70-130	1		20
Ethyl-Tert-Butyl-Ether	107		109		70-130	2		20
Tertiary-Amyl Methyl Ether	94		97		70-130	3		20
1,4-Dioxane	93		98		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		108		70-130
Toluene-d8	92		92		70-130
4-Bromofluorobenzene	101		102		70-130
Dibromofluoromethane	99		100		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07,11 Batch: WG908330-1 WG908330-2								
Methylene chloride	103		99		70-130	4		20
1,1-Dichloroethane	106		102		70-130	4		20
Chloroform	100		99		70-130	1		20
Carbon tetrachloride	92		88		70-130	4		20
1,2-Dichloropropane	104		104		70-130	0		20
Dibromochloromethane	88		88		70-130	0		20
1,1,2-Trichloroethane	97		98		70-130	1		20
Tetrachloroethene	78		75		70-130	4		20
Chlorobenzene	86		84		70-130	2		20
Trichlorofluoromethane	72		68	Q	70-130	6		20
1,2-Dichloroethane	109		112		70-130	3		20
1,1,1-Trichloroethane	94		90		70-130	4		20
Bromodichloromethane	101		100		70-130	1		20
trans-1,3-Dichloropropene	93		95		70-130	2		20
cis-1,3-Dichloropropene	98		99		70-130	1		20
1,1-Dichloropropene	96		91		70-130	5		20
Bromoform	85		89		70-130	5		20
1,1,2,2-Tetrachloroethane	93		97		70-130	4		20
Benzene	98		96		70-130	2		20
Toluene	85		82		70-130	4		20
Ethylbenzene	86		83		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07,11 Batch: WG908330-1 WG908330-2								
Chloromethane	100		95		70-130	5		20
Bromomethane	76		72		70-130	5		20
Vinyl chloride	85		78		70-130	9		20
Chloroethane	80		74		70-130	8		20
1,1-Dichloroethene	94		88		70-130	7		20
trans-1,2-Dichloroethene	93		90		70-130	3		20
Trichloroethene	95		92		70-130	3		20
1,2-Dichlorobenzene	80		81		70-130	1		20
1,3-Dichlorobenzene	81		80		70-130	1		20
1,4-Dichlorobenzene	82		82		70-130	0		20
Methyl tert butyl ether	100		103		70-130	3		20
p/m-Xylene	85		81		70-130	5		20
o-Xylene	84		81		70-130	4		20
cis-1,2-Dichloroethene	94		92		70-130	2		20
Dibromomethane	98		102		70-130	4		20
1,2,3-Trichloropropane	92		99		70-130	7		20
Styrene	86		83		70-130	4		20
Dichlorodifluoromethane	80		73		70-130	9		20
Acetone	133	Q	139	Q	70-130	4		20
Carbon disulfide	104		96		70-130	8		20
Methyl ethyl ketone	117		123		70-130	5		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07,11 Batch: WG908330-1 WG908330-2								
Methyl isobutyl ketone	99		106		70-130	7		20
2-Hexanone	94		100		70-130	6		20
Bromochloromethane	95		95		70-130	0		20
Tetrahydrofuran	114		118		70-130	3		20
2,2-Dichloropropane	97		93		70-130	4		20
1,2-Dibromoethane	87		91		70-130	4		20
1,3-Dichloropropane	95		97		70-130	2		20
1,1,1,2-Tetrachloroethane	87		85		70-130	2		20
Bromobenzene	80		80		70-130	0		20
n-Butylbenzene	83		80		70-130	4		20
sec-Butylbenzene	81		78		70-130	4		20
tert-Butylbenzene	78		76		70-130	3		20
o-Chlorotoluene	88		86		70-130	2		20
p-Chlorotoluene	87		86		70-130	1		20
1,2-Dibromo-3-chloropropane	80		84		70-130	5		20
Hexachlorobutadiene	69	Q	68	Q	70-130	1		20
Isopropylbenzene	79		78		70-130	1		20
p-Isopropyltoluene	78		75		70-130	4		20
Naphthalene	74		78		70-130	5		20
n-Propylbenzene	84		82		70-130	2		20
1,2,3-Trichlorobenzene	74		77		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07,11 Batch: WG908330-1 WG908330-2								
1,2,4-Trichlorobenzene	74		74		70-130	0		20
1,3,5-Trimethylbenzene	84		82		70-130	2		20
1,2,4-Trimethylbenzene	83		81		70-130	2		20
Diethyl ether	86		86		70-130	0		20
Diisopropyl Ether	115		116		70-130	1		20
Ethyl-Tert-Butyl-Ether	107		109		70-130	2		20
Tertiary-Amyl Methyl Ether	94		97		70-130	3		20
1,4-Dioxane	93		98		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		108		70-130
Toluene-d8	92		92		70-130
4-Bromofluorobenzene	101		102		70-130
Dibromofluoromethane	99		100		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 08 Batch: WG908421-1 WG908421-2								
Methylene chloride	96		93		70-130	3		20
1,1-Dichloroethane	94		92		70-130	2		20
Chloroform	102		99		70-130	3		20
Carbon tetrachloride	104		99		70-130	5		20
1,2-Dichloropropane	100		101		70-130	1		20
Dibromochloromethane	92		102		70-130	10		20
1,1,2-Trichloroethane	90		108		70-130	18		20
Tetrachloroethene	99		108		70-130	9		20
Chlorobenzene	105		102		70-130	3		20
Trichlorofluoromethane	100		94		70-130	6		20
1,2-Dichloroethane	92		92		70-130	0		20
1,1,1-Trichloroethane	104		100		70-130	4		20
Bromodichloromethane	93		92		70-130	1		20
trans-1,3-Dichloropropene	84		102		70-130	19		20
cis-1,3-Dichloropropene	85		105		70-130	21	Q	20
1,1-Dichloropropene	112		108		70-130	4		20
Bromoform	96		97		70-130	1		20
1,1,2,2-Tetrachloroethane	96		94		70-130	2		20
Benzene	108		106		70-130	2		20
Toluene	84		104		70-130	21	Q	20
Ethylbenzene	107		104		70-130	3		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 08 Batch: WG908421-1 WG908421-2								
Chloromethane	98		94		70-130	4		20
Bromomethane	82		80		70-130	2		20
Vinyl chloride	90		97		70-130	7		20
Chloroethane	82		81		70-130	1		20
1,1-Dichloroethene	96		91		70-130	5		20
trans-1,2-Dichloroethene	96		94		70-130	2		20
Trichloroethene	106		103		70-130	3		20
1,2-Dichlorobenzene	103		88		70-130	16		20
1,3-Dichlorobenzene	105		102		70-130	3		20
1,4-Dichlorobenzene	104		102		70-130	2		20
Methyl tert butyl ether	86		86		70-130	0		20
p/m-Xylene	108		105		70-130	3		20
o-Xylene	104		103		70-130	1		20
cis-1,2-Dichloroethene	103		102		70-130	1		20
Dibromomethane	96		97		70-130	1		20
1,2,3-Trichloropropane	95		97		70-130	2		20
Styrene	117		112		70-130	4		20
Dichlorodifluoromethane	97		91		70-130	6		20
Acetone	88		84		70-130	5		20
Carbon disulfide	98		93		70-130	5		20
Methyl ethyl ketone	100		101		70-130	1		20

Lab Control Sample Analysis Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 08 Batch: WG908421-1 WG908421-2								
Methyl isobutyl ketone	77		98		70-130	24	Q	20
2-Hexanone	96		90		70-130	6		20
Bromochloromethane	106		105		70-130	1		20
Tetrahydrofuran	99		108		70-130	9		20
2,2-Dichloropropane	100		97		70-130	3		20
1,2-Dibromoethane	97		104		70-130	7		20
1,3-Dichloropropane	95		105		70-130	10		20
1,1,1,2-Tetrachloroethane	102		101		70-130	1		20
Bromobenzene	102		99		70-130	3		20
n-Butylbenzene	111		89		70-130	22	Q	20
sec-Butylbenzene	109		103		70-130	6		20
tert-Butylbenzene	107		101		70-130	6		20
o-Chlorotoluene	105		99		70-130	6		20
p-Chlorotoluene	104		100		70-130	4		20
1,2-Dibromo-3-chloropropane	92		82		70-130	11		20
Hexachlorobutadiene	98		92		70-130	6		20
Isopropylbenzene	108		101		70-130	7		20
p-Isopropyltoluene	108		104		70-130	4		20
Naphthalene	98		74		70-130	28	Q	20
n-Propylbenzene	108		102		70-130	6		20
1,2,3-Trichlorobenzene	100		85		70-130	16		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 08 Batch: WG908421-1 WG908421-2								
1,2,4-Trichlorobenzene	101		83		70-130	20		20
1,3,5-Trimethylbenzene	105		100		70-130	5		20
1,2,4-Trimethylbenzene	107		102		70-130	5		20
Diethyl ether	90		90		70-130	0		20
Diisopropyl Ether	93		92		70-130	1		20
Ethyl-Tert-Butyl-Ether	94		93		70-130	1		20
Tertiary-Amyl Methyl Ether	101		101		70-130	0		20
1,4-Dioxane	83		87		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	88		88		70-130
Toluene-d8	87		102		70-130
4-Bromofluorobenzene	99		96		70-130
Dibromofluoromethane	100		100		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG908456-1 WG908456-2								
Methylene chloride	99		94		70-130	5		20
1,1-Dichloroethane	99		93		70-130	6		20
Chloroform	102		95		70-130	7		20
Carbon tetrachloride	113		100		70-130	12		20
1,2-Dichloropropane	92		88		70-130	4		20
Dibromochloromethane	98		93		70-130	5		20
1,1,2-Trichloroethane	89		90		70-130	1		20
Tetrachloroethene	106		96		70-130	10		20
Chlorobenzene	100		94		70-130	6		20
Trichlorofluoromethane	114		98		70-130	15		20
1,2-Dichloroethane	95		91		70-130	4		20
1,1,1-Trichloroethane	108		97		70-130	11		20
Bromodichloromethane	97		94		70-130	3		20
trans-1,3-Dichloropropene	89		88		70-130	1		20
cis-1,3-Dichloropropene	94		92		70-130	2		20
1,1-Dichloropropene	106		96		70-130	10		20
Bromoform	87		85		70-130	2		20
1,1,2,2-Tetrachloroethane	79		78		70-130	1		20
Benzene	99		93		70-130	6		20
Toluene	89		83		70-130	7		20
Ethylbenzene	101		92		70-130	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG908456-1 WG908456-2								
Chloromethane	90		79		70-130	13		20
Bromomethane	90		84		70-130	7		20
Vinyl chloride	99		90		70-130	10		20
Chloroethane	94		86		70-130	9		20
1,1-Dichloroethene	111		99		70-130	11		20
trans-1,2-Dichloroethene	105		96		70-130	9		20
Trichloroethene	105		98		70-130	7		20
1,2-Dichlorobenzene	94		91		70-130	3		20
1,3-Dichlorobenzene	98		94		70-130	4		20
1,4-Dichlorobenzene	97		91		70-130	6		20
Methyl tert butyl ether	90		86		70-130	5		20
p/m-Xylene	106		98		70-130	8		20
o-Xylene	106		97		70-130	9		20
cis-1,2-Dichloroethene	103		98		70-130	5		20
Dibromomethane	99		96		70-130	3		20
1,2,3-Trichloropropane	82		81		70-130	1		20
Styrene	104		98		70-130	6		20
Dichlorodifluoromethane	111		94		70-130	17		20
Acetone	89		86		70-130	3		20
Carbon disulfide	64	Q	53	Q	70-130	19		20
Methyl ethyl ketone	80		84		70-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG908456-1 WG908456-2								
Methyl isobutyl ketone	70		70		70-130	0		20
2-Hexanone	63	Q	61	Q	70-130	3		20
Bromochloromethane	110		109		70-130	1		20
Tetrahydrofuran	84		82		70-130	2		20
2,2-Dichloropropane	104		93		70-130	11		20
1,2-Dibromoethane	92		89		70-130	3		20
1,3-Dichloropropane	90		88		70-130	2		20
1,1,1,2-Tetrachloroethane	100		94		70-130	6		20
Bromobenzene	91		90		70-130	1		20
n-Butylbenzene	105		96		70-130	9		20
sec-Butylbenzene	103		95		70-130	8		20
tert-Butylbenzene	102		92		70-130	10		20
o-Chlorotoluene	97		92		70-130	5		20
p-Chlorotoluene	98		91		70-130	7		20
1,2-Dibromo-3-chloropropane	76		79		70-130	4		20
Hexachlorobutadiene	101		92		70-130	9		20
Isopropylbenzene	99		91		70-130	8		20
p-Isopropyltoluene	97		88		70-130	10		20
Naphthalene	75		74		70-130	1		20
n-Propylbenzene	97		89		70-130	9		20
1,2,3-Trichlorobenzene	92		89		70-130	3		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 07 Batch: WG908456-1 WG908456-2								
1,2,4-Trichlorobenzene	92		87		70-130	6		20
1,3,5-Trimethylbenzene	101		94		70-130	7		20
1,2,4-Trimethylbenzene	102		95		70-130	7		20
Diethyl ether	96		93		70-130	3		20
Diisopropyl Ether	88		86		70-130	2		20
Ethyl-Tert-Butyl-Ether	89		87		70-130	2		20
Tertiary-Amyl Methyl Ether	87		87		70-130	0		20
1,4-Dioxane	69	Q	74		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	92		91		70-130
Toluene-d8	96		96		70-130
4-Bromofluorobenzene	91		90		70-130
Dibromofluoromethane	101		100		70-130

SEMIVOLATILES

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-01
Client ID: 04
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/23/16 19:07
Analyst: SF
Percent Solids: 31%

Date Collected: 06/13/16 10:30
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Naphthalene	ND		ug/kg	12.8	--	1
Acenaphthylene	ND		ug/kg	12.8	--	1
Acenaphthene	ND		ug/kg	12.8	--	1
Fluorene	ND		ug/kg	12.8	--	1
Phenanthrene	18.2		ug/kg	12.8	--	1
Anthracene	ND		ug/kg	12.8	--	1
Fluoranthene	52.3		ug/kg	12.8	--	1
Pyrene	43.6		ug/kg	12.8	--	1
Benz(a)anthracene	20.9		ug/kg	12.8	--	1
Chrysene	34.5		ug/kg	12.8	--	1
Benzo(b)fluoranthene	36.1		ug/kg	12.8	--	1
Benzo(k)fluoranthene	35.3		ug/kg	12.8	--	1
Benzo(a)pyrene	25.8		ug/kg	12.8	--	1
Indeno(1,2,3-cd)Pyrene	37.9		ug/kg	12.8	--	1
Dibenz(a,h)anthracene	ND		ug/kg	12.8	--	1
Benzo(ghi)perylene	27.9		ug/kg	12.8	--	1
Cl2-BZ#8	ND		ug/kg	1.28	--	1
Cl3-BZ#18	ND		ug/kg	1.28	--	1
Cl3-BZ#28	ND		ug/kg	1.28	--	1
Cl4-BZ#44	ND		ug/kg	1.28	--	1
Cl4-BZ#49	ND		ug/kg	1.28	--	1
Cl4-BZ#52	ND		ug/kg	1.28	--	1
Cl4-BZ#66	ND		ug/kg	1.28	--	1
Cl5-BZ#87	ND		ug/kg	1.28	--	1
Cl5-BZ#101	ND		ug/kg	1.28	--	1
Cl5-BZ#105	ND		ug/kg	1.28	--	1
Cl5-BZ#118	ND		ug/kg	1.28	--	1
Cl6-BZ#128	ND		ug/kg	1.28	--	1
Cl6-BZ#138	ND		ug/kg	1.28	--	1
Cl6-BZ#153	ND		ug/kg	1.28	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-01
Client ID: 04
Sample Location: BRAINTREE, MA

Date Collected: 06/13/16 10:30
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Cl7-BZ#170	ND		ug/kg	1.28	--	1
Cl7-BZ#180	ND		ug/kg	1.28	--	1
Cl7-BZ#183	ND		ug/kg	1.28	--	1
Cl7-BZ#184	ND		ug/kg	1.28	--	1
Cl7-BZ#187	ND		ug/kg	1.28	--	1
Cl8-BZ#195	ND		ug/kg	1.28	--	1
Cl9-BZ#206	ND		ug/kg	1.28	--	1
Cl10-BZ#209	ND		ug/kg	1.28	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	59		30-150
Pyrene-d10	70		30-150
Benzo(b)fluoranthene-d12	70		30-150
DBOB	98		50-125
BZ 198	90		50-125

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-02
Client ID: 05
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/23/16 19:42
Analyst: SF
Percent Solids: 32%

Date Collected: 06/13/16 11:40
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Naphthalene	ND		ug/kg	11.4	--	1
Acenaphthylene	ND		ug/kg	11.4	--	1
Acenaphthene	ND		ug/kg	11.4	--	1
Fluorene	ND		ug/kg	11.4	--	1
Phenanthrene	62.1		ug/kg	11.4	--	1
Anthracene	ND		ug/kg	11.4	--	1
Fluoranthene	137		ug/kg	11.4	--	1
Pyrene	121		ug/kg	11.4	--	1
Benz(a)anthracene	58.2		ug/kg	11.4	--	1
Chrysene	83.9		ug/kg	11.4	--	1
Benzo(b)fluoranthene	93.9		ug/kg	11.4	--	1
Benzo(k)fluoranthene	59.8		ug/kg	11.4	--	1
Benzo(a)pyrene	65.6		ug/kg	11.4	--	1
Indeno(1,2,3-cd)Pyrene	70.4		ug/kg	11.4	--	1
Dibenz(a,h)anthracene	12.9		ug/kg	11.4	--	1
Benzo(ghi)perylene	57.3		ug/kg	11.4	--	1
Cl2-BZ#8	ND		ug/kg	1.14	--	1
Cl3-BZ#18	ND		ug/kg	1.14	--	1
Cl3-BZ#28	ND		ug/kg	1.14	--	1
Cl4-BZ#44	ND		ug/kg	1.14	--	1
Cl4-BZ#49	ND		ug/kg	1.14	--	1
Cl4-BZ#52	ND		ug/kg	1.14	--	1
Cl4-BZ#66	ND		ug/kg	1.14	--	1
Cl5-BZ#87	ND		ug/kg	1.14	--	1
Cl5-BZ#101	ND		ug/kg	1.14	--	1
Cl5-BZ#105	ND		ug/kg	1.14	--	1
Cl5-BZ#118	ND		ug/kg	1.14	--	1
Cl6-BZ#128	ND		ug/kg	1.14	--	1
Cl6-BZ#138	1.14		ug/kg	1.14	--	1
Cl6-BZ#153	ND		ug/kg	1.14	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-02
Client ID: 05
Sample Location: BRAINTREE, MA

Date Collected: 06/13/16 11:40
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
CI7-BZ#170	ND		ug/kg	1.14	--	1
CI7-BZ#180	ND		ug/kg	1.14	--	1
CI7-BZ#183	ND		ug/kg	1.14	--	1
CI7-BZ#184	ND		ug/kg	1.14	--	1
CI7-BZ#187	ND		ug/kg	1.14	--	1
CI8-BZ#195	ND		ug/kg	1.14	--	1
CI9-BZ#206	ND		ug/kg	1.14	--	1
CI10-BZ#209	1.35		ug/kg	1.14	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	49		30-150
Pyrene-d10	68		30-150
Benzo(b)fluoranthene-d12	68		30-150
DBOB	96		50-125
BZ 198	91		50-125

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-03
Client ID: 08
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/23/16 20:18
Analyst: SF
Percent Solids: 21%

Date Collected: 06/13/16 14:15
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Naphthalene	87.8		ug/kg	18.2	--	1
Acenaphthylene	133		ug/kg	18.2	--	1
Acenaphthene	205		ug/kg	18.2	--	1
Fluorene	251		ug/kg	18.2	--	1
Phenanthrene	2000		ug/kg	18.2	--	1
Anthracene	269		ug/kg	18.2	--	1
Fluoranthene	4880	E	ug/kg	18.2	--	1
Pyrene	4310	E	ug/kg	18.2	--	1
Benz(a)anthracene	2470		ug/kg	18.2	--	1
Chrysene	3070		ug/kg	18.2	--	1
Benzo(b)fluoranthene	3870	E	ug/kg	18.2	--	1
Benzo(k)fluoranthene	2110		ug/kg	18.2	--	1
Benzo(a)pyrene	2760		ug/kg	18.2	--	1
Indeno(1,2,3-cd)Pyrene	2310		ug/kg	18.2	--	1
Dibenz(a,h)anthracene	529		ug/kg	18.2	--	1
Benzo(ghi)perylene	2320		ug/kg	18.2	--	1
Cl2-BZ#8	ND		ug/kg	1.82	--	1
Cl3-BZ#18	ND		ug/kg	1.82	--	1
Cl3-BZ#28	ND		ug/kg	1.82	--	1
Cl4-BZ#44	11.4		ug/kg	1.82	--	1
Cl4-BZ#49	10.9		ug/kg	1.82	--	1
Cl4-BZ#52	40.5		ug/kg	1.82	--	1
Cl4-BZ#66	9.62		ug/kg	1.82	--	1
Cl5-BZ#87	14.3		ug/kg	1.82	--	1
Cl5-BZ#101	35.1		ug/kg	1.82	--	1
Cl5-BZ#105	ND		ug/kg	1.82	--	1
Cl5-BZ#118	31.2		ug/kg	1.82	--	1
Cl6-BZ#128	7.78		ug/kg	1.82	--	1
Cl6-BZ#138	44.4		ug/kg	1.82	--	1
Cl6-BZ#153	37.0		ug/kg	1.82	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-03
Client ID: 08
Sample Location: BRAINTREE, MA

Date Collected: 06/13/16 14:15
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
CI7-BZ#170	17.4		ug/kg	1.82	--	1
CI7-BZ#180	38.1		ug/kg	1.82	--	1
CI7-BZ#183	8.03		ug/kg	1.82	--	1
CI7-BZ#184	ND		ug/kg	1.82	--	1
CI7-BZ#187	21.1		ug/kg	1.82	--	1
CI8-BZ#195	4.41		ug/kg	1.82	--	1
CI9-BZ#206	3.88		ug/kg	1.82	--	1
CI10-BZ#209	62.4		ug/kg	1.82	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	61		30-150
Pyrene-d10	74		30-150
Benzo(b)fluoranthene-d12	72		30-150
DBOB	108		50-125
BZ 198	120		50-125

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-03 D
Client ID: 08
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/24/16 15:54
Analyst: SF
Percent Solids: 21%

Date Collected: 06/13/16 14:15
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

PAHs/PCB Congeners by GC/MS - Mansfield Lab

Fluoranthene	5020		ug/kg	36.5	--	2
Pyrene	4160		ug/kg	36.5	--	2
Benzo(b)fluoranthene	3270		ug/kg	36.5	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	59		30-150
Pyrene-d10	71		30-150
Benzo(b)fluoranthene-d12	71		30-150

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-04
Client ID: 07
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/23/16 20:53
Analyst: SF
Percent Solids: 56%

Date Collected: 06/13/16 15:00
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Naphthalene	47.3		ug/kg	6.70	--	1
Acenaphthylene	28.0		ug/kg	6.70	--	1
Acenaphthene	62.4		ug/kg	6.70	--	1
Fluorene	98.3		ug/kg	6.70	--	1
Phenanthrene	1090		ug/kg	6.70	--	1
Anthracene	138		ug/kg	6.70	--	1
Fluoranthene	2280	E	ug/kg	6.70	--	1
Pyrene	1730	E	ug/kg	6.70	--	1
Benz(a)anthracene	950		ug/kg	6.70	--	1
Chrysene	1160		ug/kg	6.70	--	1
Benzo(b)fluoranthene	1420	E	ug/kg	6.70	--	1
Benzo(k)fluoranthene	673		ug/kg	6.70	--	1
Benzo(a)pyrene	980		ug/kg	6.70	--	1
Indeno(1,2,3-cd)Pyrene	883		ug/kg	6.70	--	1
Dibenz(a,h)anthracene	172		ug/kg	6.70	--	1
Benzo(ghi)perylene	817		ug/kg	6.70	--	1
Cl2-BZ#8	ND		ug/kg	0.670	--	1
Cl3-BZ#18	ND		ug/kg	0.670	--	1
Cl3-BZ#28	1.25		ug/kg	0.670	--	1
Cl4-BZ#44	0.804		ug/kg	0.670	--	1
Cl4-BZ#49	4.86		ug/kg	0.670	--	1
Cl4-BZ#52	2.15		ug/kg	0.670	--	1
Cl4-BZ#66	2.90		ug/kg	0.670	--	1
Cl5-BZ#87	1.60		ug/kg	0.670	--	1
Cl5-BZ#101	5.94		ug/kg	0.670	--	1
Cl5-BZ#105	ND		ug/kg	0.670	--	1
Cl5-BZ#118	5.07		ug/kg	0.670	--	1
Cl6-BZ#128	1.89		ug/kg	0.670	--	1
Cl6-BZ#138	7.81		ug/kg	0.670	--	1
Cl6-BZ#153	5.51		ug/kg	0.670	--	1

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS****Lab ID:** L1618042-04**Date Collected:** 06/13/16 15:00**Client ID:** 07**Date Received:** 06/13/16**Sample Location:** BRAINTREE, MA**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

PAHs/PCB Congeners by GC/MS - Mansfield Lab

CI7-BZ#170	1.48		ug/kg	0.670	--	1
CI7-BZ#180	1.99		ug/kg	0.670	--	1
CI7-BZ#183	ND		ug/kg	0.670	--	1
CI7-BZ#184	ND		ug/kg	0.670	--	1
CI7-BZ#187	1.07		ug/kg	0.670	--	1
CI8-BZ#195	ND		ug/kg	0.670	--	1
CI9-BZ#206	ND		ug/kg	0.670	--	1
CI10-BZ#209	2.02		ug/kg	0.670	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	38		30-150
Pyrene-d10	47		30-150
Benzo(b)fluoranthene-d12	45		30-150
DBOB	64		50-125
BZ 198	60		50-125

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-04 D
 Client ID: 07
 Sample Location: BRAINTREE, MA
 Matrix: Sediment
 Analytical Method: 105,8270D-SIM/680(M)
 Analytical Date: 06/24/16 16:29
 Analyst: SF
 Percent Solids: 56%

Date Collected: 06/13/16 15:00
 Date Received: 06/13/16
 Field Prep: Not Specified
 Extraction Method: EPA 3570
 Extraction Date: 06/21/16 10:06
 Cleanup Method: EPA 3630
 Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

PAHs/PCB Congeners by GC/MS - Mansfield Lab

Fluoranthene	2180		ug/kg	13.4	--	2
Pyrene	1650		ug/kg	13.4	--	2
Benzo(b)fluoranthene	1270		ug/kg	13.4	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	37		30-150
Pyrene-d10	45		30-150
Benzo(b)fluoranthene-d12	43		30-150

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-05
Client ID: 06
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/23/16 21:28
Analyst: SF
Percent Solids: 25%

Date Collected: 06/13/16 16:00
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Naphthalene	59.9		ug/kg	15.1	--	1
Acenaphthylene	160		ug/kg	15.1	--	1
Acenaphthene	76.6		ug/kg	15.1	--	1
Fluorene	173		ug/kg	15.1	--	1
Phenanthrene	2330		ug/kg	15.1	--	1
Anthracene	224		ug/kg	15.1	--	1
Fluoranthene	6300	E	ug/kg	15.1	--	1
Pyrene	4680	E	ug/kg	15.1	--	1
Benz(a)anthracene	2960		ug/kg	15.1	--	1
Chrysene	3670	E	ug/kg	15.1	--	1
Benzo(b)fluoranthene	4820	E	ug/kg	15.1	--	1
Benzo(k)fluoranthene	2030		ug/kg	15.1	--	1
Benzo(a)pyrene	2780		ug/kg	15.1	--	1
Indeno(1,2,3-cd)Pyrene	2380		ug/kg	15.1	--	1
Dibenz(a,h)anthracene	521		ug/kg	15.1	--	1
Benzo(ghi)perylene	2240		ug/kg	15.1	--	1
Cl2-BZ#8	1.82		ug/kg	1.51	--	1
Cl3-BZ#18	2.05		ug/kg	1.51	--	1
Cl3-BZ#28	6.30		ug/kg	1.51	--	1
Cl4-BZ#44	4.04		ug/kg	1.51	--	1
Cl4-BZ#49	3.51		ug/kg	1.51	--	1
Cl4-BZ#52	7.11		ug/kg	1.51	--	1
Cl4-BZ#66	4.81		ug/kg	1.51	--	1
Cl5-BZ#87	5.83		ug/kg	1.51	--	1
Cl5-BZ#101	21.3		ug/kg	1.51	--	1
Cl5-BZ#105	5.22		ug/kg	1.51	--	1
Cl5-BZ#118	8.64		ug/kg	1.51	--	1
Cl6-BZ#128	12.1		ug/kg	1.51	--	1
Cl6-BZ#138	88.9		ug/kg	1.51	--	1
Cl6-BZ#153	81.6		ug/kg	1.51	--	1

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS****Lab ID:** L1618042-05**Date Collected:** 06/13/16 16:00**Client ID:** 06**Date Received:** 06/13/16**Sample Location:** BRAINTREE, MA**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

PAHs/PCB Congeners by GC/MS - Mansfield Lab

CI7-BZ#170	52.6		ug/kg	1.51	--	1
CI7-BZ#180	84.2		ug/kg	1.51	--	1
CI7-BZ#183	19.8		ug/kg	1.51	--	1
CI7-BZ#184	ND		ug/kg	1.51	--	1
CI7-BZ#187	43.5		ug/kg	1.51	--	1
CI8-BZ#195	9.22		ug/kg	1.51	--	1
CI9-BZ#206	4.33		ug/kg	1.51	--	1
CI10-BZ#209	1.64		ug/kg	1.51	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	64		30-150
Pyrene-d10	68		30-150
Benzo(b)fluoranthene-d12	64		30-150
DBOB	110		50-125
BZ 198	105		50-125

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-05 D
 Client ID: 06
 Sample Location: BRAINTREE, MA
 Matrix: Sediment
 Analytical Method: 105,8270D-SIM/680(M)
 Analytical Date: 06/24/16 17:04
 Analyst: SF
 Percent Solids: 25%

Date Collected: 06/13/16 16:00
 Date Received: 06/13/16
 Field Prep: Not Specified
 Extraction Method: EPA 3570
 Extraction Date: 06/21/16 10:06
 Cleanup Method: EPA 3630
 Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

PAHs/PCB Congeners by GC/MS - Mansfield Lab

Fluoranthene	6020		ug/kg	75.6	--	5
Pyrene	4670		ug/kg	75.6	--	5
Chrysene	3920		ug/kg	75.6	--	5
Benzo(b)fluoranthene	3720		ug/kg	75.6	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	59		30-150
Pyrene-d10	66		30-150
Benzo(b)fluoranthene-d12	61		30-150

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-06
Client ID: 03
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/23/16 22:03
Analyst: SF
Percent Solids: 62%

Date Collected: 06/14/16 08:00
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Naphthalene	20.2		ug/kg	6.12	--	1
Acenaphthylene	84.6		ug/kg	6.12	--	1
Acenaphthene	48.1		ug/kg	6.12	--	1
Fluorene	108		ug/kg	6.12	--	1
Phenanthrene	881		ug/kg	6.12	--	1
Anthracene	172		ug/kg	6.12	--	1
Fluoranthene	1660	E	ug/kg	6.12	--	1
Pyrene	1400	E	ug/kg	6.12	--	1
Benz(a)anthracene	819		ug/kg	6.12	--	1
Chrysene	838		ug/kg	6.12	--	1
Benzo(b)fluoranthene	705		ug/kg	6.12	--	1
Benzo(k)fluoranthene	642		ug/kg	6.12	--	1
Benzo(a)pyrene	746		ug/kg	6.12	--	1
Indeno(1,2,3-cd)Pyrene	532		ug/kg	6.12	--	1
Dibenz(a,h)anthracene	124		ug/kg	6.12	--	1
Benzo(ghi)perylene	501		ug/kg	6.12	--	1
Cl2-BZ#8	ND		ug/kg	0.612	--	1
Cl3-BZ#18	1.44		ug/kg	0.612	--	1
Cl3-BZ#28	3.84		ug/kg	0.612	--	1
Cl4-BZ#44	2.18		ug/kg	0.612	--	1
Cl4-BZ#49	1.86		ug/kg	0.612	--	1
Cl4-BZ#52	2.81		ug/kg	0.612	--	1
Cl4-BZ#66	1.76		ug/kg	0.612	--	1
Cl5-BZ#87	1.28		ug/kg	0.612	--	1
Cl5-BZ#101	2.38		ug/kg	0.612	--	1
Cl5-BZ#105	ND		ug/kg	0.612	--	1
Cl5-BZ#118	2.12		ug/kg	0.612	--	1
Cl6-BZ#128	0.796		ug/kg	0.612	--	1
Cl6-BZ#138	5.30		ug/kg	0.612	--	1
Cl6-BZ#153	4.80		ug/kg	0.612	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-06
Client ID: 03
Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 08:00
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Cl7-BZ#170	2.41		ug/kg	0.612	--	1
Cl7-BZ#180	4.68		ug/kg	0.612	--	1
Cl7-BZ#183	1.18		ug/kg	0.612	--	1
Cl7-BZ#184	ND		ug/kg	0.612	--	1
Cl7-BZ#187	2.17		ug/kg	0.612	--	1
Cl8-BZ#195	ND		ug/kg	0.612	--	1
Cl9-BZ#206	ND		ug/kg	0.612	--	1
Cl10-BZ#209	ND		ug/kg	0.612	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	69		30-150
Pyrene-d10	81		30-150
Benzo(b)fluoranthene-d12	78		30-150
DBOB	115		50-125
BZ 198	108		50-125

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-06 D
Client ID: 03
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/24/16 17:40
Analyst: SF
Percent Solids: 62%

Date Collected: 06/14/16 08:00
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

PAHs/PCB Congeners by GC/MS - Mansfield Lab

Fluoranthene	1580		ug/kg	12.2	--	2
Pyrene	1340		ug/kg	12.2	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	66		30-150
Pyrene-d10	76		30-150
Benzo(b)fluoranthene-d12	75		30-150

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-07
Client ID: 02
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/23/16 22:38
Analyst: SF
Percent Solids: 44%

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Naphthalene	193		ug/kg	8.82	--	1
Acenaphthylene	189		ug/kg	8.82	--	1
Cl2-BZ#8	ND		ug/kg	0.882	--	1
Cl3-BZ#18	ND		ug/kg	0.882	--	1
Cl3-BZ#28	2.25		ug/kg	0.882	--	1
Cl4-BZ#44	2.27		ug/kg	0.882	--	1
Cl4-BZ#49	1.23		ug/kg	0.882	--	1
Cl4-BZ#52	5.75		ug/kg	0.882	--	1
Cl4-BZ#66	2.33		ug/kg	0.882	--	1
Cl5-BZ#87	2.66		ug/kg	0.882	--	1
Cl5-BZ#101	7.14		ug/kg	0.882	--	1
Cl5-BZ#105	ND		ug/kg	0.882	--	1
Cl5-BZ#118	5.14		ug/kg	0.882	--	1
Cl6-BZ#128	ND		ug/kg	0.882	--	1
Cl6-BZ#138	12.0		ug/kg	0.882	--	1
Cl6-BZ#153	10.9		ug/kg	0.882	--	1
Cl7-BZ#170	5.57		ug/kg	0.882	--	1
Cl7-BZ#180	11.2		ug/kg	0.882	--	1
Cl7-BZ#183	2.60		ug/kg	0.882	--	1
Cl7-BZ#184	ND		ug/kg	0.882	--	1
Cl7-BZ#187	6.04		ug/kg	0.882	--	1
Cl8-BZ#195	1.61		ug/kg	0.882	--	1
Cl9-BZ#206	1.07		ug/kg	0.882	--	1
Cl10-BZ#209	12.7		ug/kg	0.882	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-07
Client ID: 02
Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

PAHs/PCB Congeners by GC/MS - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	69		30-150
Pyrene-d10	73		30-150
Benzo(b)fluoranthene-d12	70		30-150
DBOB	145	Q	50-125
BZ 198	125		50-125

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-07 D
Client ID: 02
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/24/16 18:15
Analyst: SF
Percent Solids: 44%

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Acenaphthene	3100		ug/kg	882	--	100
Fluorene	5410		ug/kg	882	--	100
Phenanthrene	59200		ug/kg	882	--	100
Anthracene	14400		ug/kg	882	--	100
Fluoranthene	102000		ug/kg	882	--	100
Pyrene	74000		ug/kg	882	--	100
Benz(a)anthracene	36600		ug/kg	882	--	100
Chrysene	43700		ug/kg	882	--	100
Benzo(b)fluoranthene	39900		ug/kg	882	--	100
Benzo(k)fluoranthene	33400		ug/kg	882	--	100
Benzo(a)pyrene	38000		ug/kg	882	--	100
Indeno(1,2,3-cd)Pyrene	30200		ug/kg	882	--	100
Dibenz(a,h)anthracene	6340		ug/kg	882	--	100
Benzo(ghi)perylene	26400		ug/kg	882	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	50		30-150
Pyrene-d10	73		30-150
Benzo(b)fluoranthene-d12	71		30-150

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-08
Client ID: 09
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/23/16 23:13
Analyst: SF
Percent Solids: 50%

Date Collected: 06/14/16 10:30
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Naphthalene	444		ug/kg	8.01	--	1
Acenaphthylene	168		ug/kg	8.01	--	1
Acenaphthene	1480		ug/kg	8.01	--	1
Fluorene	1860	E	ug/kg	8.01	--	1
Phenanthrene	4500	E	ug/kg	8.01	--	1
Anthracene	750		ug/kg	8.01	--	1
Fluoranthene	6190	E	ug/kg	8.01	--	1
Pyrene	7790	E	ug/kg	8.01	--	1
Benz(a)anthracene	3860	E	ug/kg	8.01	--	1
Chrysene	2500	E	ug/kg	8.01	--	1
Benzo(b)fluoranthene	2650	E	ug/kg	8.01	--	1
Benzo(k)fluoranthene	1660	E	ug/kg	8.01	--	1
Benzo(a)pyrene	2100	E	ug/kg	8.01	--	1
Indeno(1,2,3-cd)Pyrene	1350		ug/kg	8.01	--	1
Dibenz(a,h)anthracene	364		ug/kg	8.01	--	1
Benzo(ghi)perylene	1220		ug/kg	8.01	--	1
Cl2-BZ#8	ND		ug/kg	0.801	--	1
Cl3-BZ#18	ND		ug/kg	0.801	--	1
Cl3-BZ#28	ND		ug/kg	0.801	--	1
Cl4-BZ#44	ND		ug/kg	0.801	--	1
Cl4-BZ#49	ND		ug/kg	0.801	--	1
Cl4-BZ#52	ND		ug/kg	0.801	--	1
Cl4-BZ#66	ND		ug/kg	0.801	--	1
Cl5-BZ#87	ND		ug/kg	0.801	--	1
Cl5-BZ#101	ND		ug/kg	0.801	--	1
Cl5-BZ#105	ND		ug/kg	0.801	--	1
Cl5-BZ#118	ND		ug/kg	0.801	--	1
Cl6-BZ#128	ND		ug/kg	0.801	--	1
Cl6-BZ#138	3.44		ug/kg	0.801	--	1
Cl6-BZ#153	2.30		ug/kg	0.801	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-08
Client ID: 09
Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 10:30
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
CI7-BZ#170	ND		ug/kg	0.801	--	1
CI7-BZ#180	2.72		ug/kg	0.801	--	1
CI7-BZ#183	ND		ug/kg	0.801	--	1
CI7-BZ#184	ND		ug/kg	0.801	--	1
CI7-BZ#187	1.40		ug/kg	0.801	--	1
CI8-BZ#195	ND		ug/kg	0.801	--	1
CI9-BZ#206	ND		ug/kg	0.801	--	1
CI10-BZ#209	2.60		ug/kg	0.801	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	70		30-150
Pyrene-d10	123		30-150
Benzo(b)fluoranthene-d12	75		30-150
DBOB	108		50-125
BZ 198	108		50-125

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-08 D
Client ID: 09
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/24/16 18:50
Analyst: SF
Percent Solids: 50%

Date Collected: 06/14/16 10:30
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Fluorene	1800		ug/kg	80.1	--	10
Phenanthrene	4320		ug/kg	80.1	--	10
Fluoranthene	6390		ug/kg	80.1	--	10
Pyrene	4840		ug/kg	80.1	--	10
Benz(a)anthracene	2460		ug/kg	80.1	--	10
Chrysene	2100		ug/kg	80.1	--	10
Benzo(b)fluoranthene	2200		ug/kg	80.1	--	10
Benzo(k)fluoranthene	2150		ug/kg	80.1	--	10
Benzo(a)pyrene	2060		ug/kg	80.1	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	65		30-150
Pyrene-d10	72		30-150
Benzo(b)fluoranthene-d12	73		30-150

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-11
Client ID: 01
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 105,8270D-SIM/680(M)
Analytical Date: 06/28/16 20:06
Analyst: SF
Percent Solids: 37%

Date Collected: 06/14/16 15:00
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 06/21/16 10:06
Cleanup Method: EPA 3630
Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
Naphthalene	23.2		ug/kg	10.3	--	1
Acenaphthylene	ND		ug/kg	10.3	--	1
Acenaphthene	18.0		ug/kg	10.3	--	1
Fluorene	ND		ug/kg	10.3	--	1
Phenanthrene	ND		ug/kg	10.3	--	1
Anthracene	ND		ug/kg	10.3	--	1
Fluoranthene	ND		ug/kg	10.3	--	1
Pyrene	ND		ug/kg	10.3	--	1
Benz(a)anthracene	ND		ug/kg	10.3	--	1
Chrysene	ND		ug/kg	10.3	--	1
Benzo(b)fluoranthene	ND		ug/kg	10.3	--	1
Benzo(k)fluoranthene	ND		ug/kg	10.3	--	1
Benzo(a)pyrene	ND		ug/kg	10.3	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	10.3	--	1
Dibenz(a,h)anthracene	ND		ug/kg	10.3	--	1
Benzo(ghi)perylene	ND		ug/kg	10.3	--	1
Cl2-BZ#8	ND		ug/kg	1.03	--	1
Cl3-BZ#18	ND		ug/kg	1.03	--	1
Cl3-BZ#28	ND		ug/kg	1.03	--	1
Cl4-BZ#44	ND		ug/kg	1.03	--	1
Cl4-BZ#49	ND		ug/kg	1.03	--	1
Cl4-BZ#52	ND		ug/kg	1.03	--	1
Cl4-BZ#66	ND		ug/kg	1.03	--	1
Cl5-BZ#87	ND		ug/kg	1.03	--	1
Cl5-BZ#101	ND		ug/kg	1.03	--	1
Cl5-BZ#105	ND		ug/kg	1.03	--	1
Cl5-BZ#118	ND		ug/kg	1.03	--	1
Cl6-BZ#128	ND		ug/kg	1.03	--	1
Cl6-BZ#138	ND		ug/kg	1.03	--	1
Cl6-BZ#153	ND		ug/kg	1.03	--	1

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-11
Client ID: 01
Sample Location: BRAINTREE, MA

Date Collected: 06/14/16 15:00
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs/PCB Congeners by GC/MS - Mansfield Lab						
CI7-BZ#170	ND		ug/kg	1.03	--	1
CI7-BZ#180	ND		ug/kg	1.03	--	1
CI7-BZ#183	ND		ug/kg	1.03	--	1
CI7-BZ#184	ND		ug/kg	1.03	--	1
CI7-BZ#187	ND		ug/kg	1.03	--	1
CI8-BZ#195	ND		ug/kg	1.03	--	1
CI9-BZ#206	ND		ug/kg	1.03	--	1
CI10-BZ#209	ND		ug/kg	1.03	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	68		30-150
Pyrene-d10	95		30-150
Benzo(b)fluoranthene-d12	106		30-150
DBOB	88		50-125
BZ 198	106		50-125

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 105,8270D-SIM/680(M)

Analytical Date: 06/23/16 17:21

Analyst: SF

Extraction Method: EPA 3570

Extraction Date: 06/21/16 10:06

Cleanup Method: EPA 3630

Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL
PAHs/PCB Congeners by GC/MS - Mansfield Lab for sample(s): 01-08,11 Batch: WG906111-1					
Naphthalene	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	--
Cl2-BZ#8	ND		ug/kg	0.400	--
Cl3-BZ#18	ND		ug/kg	0.400	--
Cl3-BZ#28	ND		ug/kg	0.400	--
Cl4-BZ#44	ND		ug/kg	0.400	--
Cl4-BZ#49	ND		ug/kg	0.400	--
Cl4-BZ#52	ND		ug/kg	0.400	--
Cl4-BZ#66	ND		ug/kg	0.400	--
Cl5-BZ#87	ND		ug/kg	0.400	--
Cl5-BZ#101	ND		ug/kg	0.400	--
Cl5-BZ#105	ND		ug/kg	0.400	--
Cl5-BZ#118	ND		ug/kg	0.400	--
Cl6-BZ#128	ND		ug/kg	0.400	--
Cl6-BZ#138	ND		ug/kg	0.400	--

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 105,8270D-SIM/680(M)

Analytical Date: 06/23/16 17:21

Analyst: SF

Extraction Method: EPA 3570

Extraction Date: 06/21/16 10:06

Cleanup Method: EPA 3630

Cleanup Date: 06/22/16

Parameter	Result	Qualifier	Units	RL	MDL
PAHs/PCB Congeners by GC/MS - Mansfield Lab for sample(s): 01-08,11 Batch: WG906111-1					
Cl6-BZ#153	ND		ug/kg	0.400	--
Cl7-BZ#170	ND		ug/kg	0.400	--
Cl7-BZ#180	ND		ug/kg	0.400	--
Cl7-BZ#183	ND		ug/kg	0.400	--
Cl7-BZ#184	ND		ug/kg	0.400	--
Cl7-BZ#187	ND		ug/kg	0.400	--
Cl8-BZ#195	ND		ug/kg	0.400	--
Cl9-BZ#206	ND		ug/kg	0.400	--
Cl10-BZ#209	ND		ug/kg	0.400	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Methylnaphthalene-d10	53		30-150
Pyrene-d10	76		30-150
Benzo(b)fluoranthene-d12	84		30-150
DBOB	95		50-125
BZ 198	96		50-125

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PAHs/PCB Congeners by GC/MS - Mansfield Lab Associated sample(s): 01-08,11 Batch: WG906111-2 WG906111-3								
Naphthalene	61		42		40-140	37	Q	30
Acenaphthylene	71		52		40-140	31	Q	30
Acenaphthene	73		55		40-140	28		30
Fluorene	77		62		40-140	22		30
Phenanthrene	76		66		40-140	14		30
Anthracene	73		64		40-140	13		30
Fluoranthene	80		73		40-140	9		30
Pyrene	73		67		40-140	9		30
Benz(a)anthracene	84		79		40-140	6		30
Chrysene	79		74		40-140	7		30
Benzo(b)fluoranthene	88		85		40-140	3		30
Benzo(k)fluoranthene	82		74		40-140	10		30
Benzo(a)pyrene	84		77		40-140	9		30
Indeno(1,2,3-cd)Pyrene	84		78		40-140	7		30
Dibenz(a,h)anthracene	86		80		40-140	7		30
Benzo(ghi)perylene	86		80		40-140	7		30
Cl2-BZ#8	93		77		40-140	19		50
Cl3-BZ#18	87		75		40-140	15		50
Cl3-BZ#28	93		83		40-140	11		50
Cl4-BZ#44	98		87		40-140	12		50
Cl4-BZ#49	89		83		40-140	7		50

Lab Control Sample Analysis Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PAHs/PCB Congeners by GC/MS - Mansfield Lab Associated sample(s): 01-08,11 Batch: WG906111-2 WG906111-3								
CI4-BZ#52	96		85		40-140	12		50
CI4-BZ#66	96		88		40-140	9		50
CI5-BZ#87	100		92		40-140	8		50
CI5-BZ#101	99		90		40-140	10		50
CI5-BZ#105	102		96		40-140	6		50
CI5-BZ#118	97		90		40-140	7		50
CI6-BZ#128	104		96		40-140	8		50
CI6-BZ#138	102		94		40-140	8		50
CI6-BZ#153	103		96		40-140	7		50
CI7-BZ#170	106		98		40-140	8		50
CI7-BZ#180	96		88		40-140	9		50
CI7-BZ#183	94		89		40-140	5		50
CI7-BZ#184	100		94		40-140	6		50
CI7-BZ#187	100		90		40-140	11		50
CI8-BZ#195	115		108		40-140	6		50
CI9-BZ#206	113		105		40-140	7		50
CI10-BZ#209	112		105		40-140	6		50

Lab Control Sample Analysis Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
------------------	--------------------------	-------------	---------------------------	-------------	-----------------------------	------------	-------------	-----------------------

PAHs/PCB Congeners by GC/MS - Mansfield Lab Associated sample(s): 01-08,11 Batch: WG906111-2 WG906111-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Methylnaphthalene-d10	65		45		30-150
Pyrene-d10	81		72		30-150
Benzo(b)fluoranthene-d12	89		80		30-150
DBOB	114		91		50-125
BZ 198	106		96		50-125

PETROLEUM HYDROCARBONS

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-01
Client ID: 04
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/28/16 16:43
Analyst: DV
Percent Solids: 31%

Date Collected: 06/13/16 10:30
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/24/16 13:35
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/25/16

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
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	ND		mg/kg	21.0	--	1
C19-C36 Aliphatics	23.9		mg/kg	21.0	--	1
C11-C22 Aromatics	27.7		mg/kg	21.0	--	1
C11-C22 Aromatics, Adjusted	27.7		mg/kg	21.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	67		40-140
o-Terphenyl	64		40-140
2-Fluorobiphenyl	81		40-140
2-Bromonaphthalene	83		40-140

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-02
Client ID: 05
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/28/16 17:22
Analyst: DV
Percent Solids: 32%

Date Collected: 06/13/16 11:40
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/24/16 13:35
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/25/16

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
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	ND		mg/kg	19.8	--	1
C19-C36 Aliphatics	20.7		mg/kg	19.8	--	1
C11-C22 Aromatics	ND		mg/kg	19.8	--	1
C11-C22 Aromatics, Adjusted	ND		mg/kg	19.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	73		40-140
o-Terphenyl	86		40-140
2-Fluorobiphenyl	105		40-140
2-Bromonaphthalene	113		40-140

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-03
Client ID: 08
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/28/16 18:00
Analyst: DV
Percent Solids: 21%

Date Collected: 06/13/16 14:15
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/24/16 13:35
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/25/16

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
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	55.2		mg/kg	30.0	--	1
C19-C36 Aliphatics	580		mg/kg	30.0	--	1
C11-C22 Aromatics	558		mg/kg	30.0	--	1
C11-C22 Aromatics, Adjusted	552		mg/kg	30.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	74		40-140
o-Terphenyl	82		40-140
2-Fluorobiphenyl	90		40-140
2-Bromonaphthalene	94		40-140

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-04
Client ID: 07
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/28/16 18:38
Analyst: DV
Percent Solids: 56%

Date Collected: 06/13/16 15:00
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/24/16 13:35
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/25/16

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
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	ND		mg/kg	11.7	--	1
C19-C36 Aliphatics	90.9		mg/kg	11.7	--	1
C11-C22 Aromatics	124		mg/kg	11.7	--	1
C11-C22 Aromatics, Adjusted	85.7		mg/kg	11.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	87		40-140
o-Terphenyl	69		40-140
2-Fluorobiphenyl	82		40-140
2-Bromonaphthalene	92		40-140

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-05
Client ID: 06
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/28/16 19:16
Analyst: DV
Percent Solids: 25%

Date Collected: 06/13/16 16:00
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/24/16 13:35
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/25/16

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
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	ND		mg/kg	26.3	--	1
C19-C36 Aliphatics	229		mg/kg	26.3	--	1
C11-C22 Aromatics	143		mg/kg	26.3	--	1
C11-C22 Aromatics, Adjusted	133		mg/kg	26.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	85		40-140
o-Terphenyl	63		40-140
2-Fluorobiphenyl	75		40-140
2-Bromonaphthalene	82		40-140

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-06
Client ID: 03
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/28/16 19:54
Analyst: DV
Percent Solids: 62%

Date Collected: 06/14/16 08:00
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/24/16 13:35
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/25/16

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
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	ND		mg/kg	10.5	--	1
C19-C36 Aliphatics	70.2		mg/kg	10.5	--	1
C11-C22 Aromatics	52.7		mg/kg	10.5	--	1
C11-C22 Aromatics, Adjusted	44.9		mg/kg	10.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	83		40-140
o-Terphenyl	62		40-140
2-Fluorobiphenyl	68		40-140
2-Bromonaphthalene	75		40-140

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-07 D
Client ID: 02
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/28/16 01:14
Analyst: DV
Percent Solids: 44%

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/24/16 13:35
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/25/16

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
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	ND		mg/kg	74.8	--	5
C19-C36 Aliphatics	254		mg/kg	74.8	--	5
C11-C22 Aromatics	1010		mg/kg	74.8	--	5
C11-C22 Aromatics, Adjusted	582		mg/kg	74.8	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	66		40-140
o-Terphenyl	70		40-140
2-Fluorobiphenyl	80		40-140
2-Bromonaphthalene	85		40-140

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-08 D
Client ID: 09
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/28/16 22:27
Analyst: DV
Percent Solids: 50%

Date Collected: 06/14/16 10:30
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/24/16 13:35
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/25/16

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
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	228		mg/kg	25.6	--	2
C19-C36 Aliphatics	273		mg/kg	25.6	--	2
C11-C22 Aromatics	736		mg/kg	25.6	--	2
C11-C22 Aromatics, Adjusted	682		mg/kg	25.6	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	80		40-140
o-Terphenyl	121		40-140
2-Fluorobiphenyl	133		40-140
2-Bromonaphthalene	139		40-140

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-11
Client ID: 01
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 98,EPH-04-1.1
Analytical Date: 06/28/16 21:11
Analyst: DV
Percent Solids: 37%

Date Collected: 06/14/16 15:00
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 06/24/16 13:35
Cleanup Method1: EPH-04-1
Cleanup Date1: 06/25/16

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
-----------	--------	-----------	-------	----	-----	-----------------

Extractable Petroleum Hydrocarbons - Westborough Lab

C9-C18 Aliphatics	ND		mg/kg	18.0	--	1
C19-C36 Aliphatics	33.6		mg/kg	18.0	--	1
C11-C22 Aromatics	59.7		mg/kg	18.0	--	1
C11-C22 Aromatics, Adjusted	59.7		mg/kg	18.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	61		40-140
o-Terphenyl	83		40-140
2-Fluorobiphenyl	88		40-140
2-Bromonaphthalene	98		40-140

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

Method Blank Analysis Batch Quality Control

Analytical Method: 98,EPH-04-1.1

Extraction Method: EPA 3546

Analytical Date: 06/28/16 14:11

Extraction Date: 06/24/16 13:35

Analyst: DV

Cleanup Method: EPH-04-1

Cleanup Date: 06/25/16

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-08,11 Batch: WG907466-1					
C9-C18 Aliphatics	ND		mg/kg	6.41	--
C19-C36 Aliphatics	ND		mg/kg	6.41	--
C11-C22 Aromatics	ND		mg/kg	6.41	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.41	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	83		40-140
o-Terphenyl	87		40-140
2-Fluorobiphenyl	97		40-140
2-Bromonaphthalene	101		40-140

Lab Control Sample Analysis Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-08,11 Batch: WG907466-2 WG907466-3								
C9-C18 Aliphatics	46		57		40-140	21		25
C19-C36 Aliphatics	60		69		40-140	14		25
C11-C22 Aromatics	64		67		40-140	5		25
Naphthalene	51		56		40-140	9		25
2-Methylnaphthalene	54		59		40-140	9		25
Acenaphthylene	48		54		40-140	12		25
Acenaphthene	54		58		40-140	7		25
Fluorene	65		70		40-140	7		25
Phenanthrene	67		72		40-140	7		25
Anthracene	58		60		40-140	3		25
Fluoranthene	67		71		40-140	6		25
Pyrene	61		63		40-140	3		25
Benzo(a)anthracene	58		60		40-140	3		25
Chrysene	59		61		40-140	3		25
Benzo(b)fluoranthene	60		61		40-140	2		25
Benzo(k)fluoranthene	60		61		40-140	2		25
Benzo(a)pyrene	51		52		40-140	2		25
Indeno(1,2,3-cd)Pyrene	57		55		40-140	4		25
Dibenzo(a,h)anthracene	57		56		40-140	2		25
Benzo(ghi)perylene	58		56		40-140	4		25
Nonane (C9)	31		39		30-140	23		25

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-08,11 Batch: WG907466-2 WG907466-3								
Decane (C10)	37	Q	46		40-140	22		25
Dodecane (C12)	40		50		40-140	22		25
Tetradecane (C14)	44		55		40-140	22		25
Hexadecane (C16)	49		60		40-140	20		25
Octadecane (C18)	52		64		40-140	21		25
Nonadecane (C19)	52		64		40-140	21		25
Eicosane (C20)	52		65		40-140	22		25
Docosane (C22)	52		64		40-140	21		25
Tetracosane (C24)	51		63		40-140	21		25
Hexacosane (C26)	51		63		40-140	21		25
Octacosane (C28)	52		64		40-140	21		25
Triacontane (C30)	53		63		40-140	17		25
Hexatriacontane (C36)	50		57		40-140	13		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	44		49		40-140
o-Terphenyl	61		63		40-140
2-Fluorobiphenyl	68		76		40-140
2-Bromonaphthalene	71		77		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

METALS

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-01

Date Collected: 06/13/16 10:30

Client ID: 04

Date Received: 06/13/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 31%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
-----------	--------	-----------	-------	----	-----	-----------------	---------------	---------------	-------------	-------------------	---------

Total Metals - Mansfield Lab

Mercury, Total	ND		mg/kg	0.037	--	5	06/27/16 13:58	06/30/16 09:43	EPA 7474	1,7474	LC
----------------	----	--	-------	-------	----	---	----------------	----------------	----------	--------	----

MCP Total Metals - Mansfield Lab

Arsenic, Total	3.02		mg/kg	0.085	--	2	06/28/16 12:14	06/28/16 15:29	EPA 3050B	97,6020A	DB
Cadmium, Total	0.3842		mg/kg	0.0341	--	2	06/28/16 12:14	06/28/16 15:29	EPA 3050B	97,6020A	DB
Chromium, Total	5.16		mg/kg	0.341	--	2	06/28/16 12:14	06/28/16 15:29	EPA 3050B	97,6020A	DB
Copper, Total	6.15		mg/kg	0.341	--	2	06/28/16 12:14	06/28/16 15:29	EPA 3050B	97,6020A	DB
Lead, Total	12.6		mg/kg	0.102	--	2	06/28/16 12:14	06/28/16 15:29	EPA 3050B	97,6020A	DB
Nickel, Total	4.25		mg/kg	0.170	--	2	06/28/16 12:14	06/28/16 15:29	EPA 3050B	97,6020A	DB
Zinc, Total	67.2		mg/kg	1.70	--	2	06/28/16 12:14	06/28/16 15:29	EPA 3050B	97,6020A	DB



Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-02

Date Collected: 06/13/16 11:40

Client ID: 05

Date Received: 06/13/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 32%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
-----------	--------	-----------	-------	----	-----	-----------------	---------------	---------------	-------------	-------------------	---------

Total Metals - Mansfield Lab

Mercury, Total	0.045		mg/kg	0.035	--	5	06/27/16 13:58	06/30/16 09:52	EPA 7474	1,7474	LC
----------------	-------	--	-------	-------	----	---	----------------	----------------	----------	--------	----

MCP Total Metals - Mansfield Lab

Arsenic, Total	12.5		mg/kg	0.079	--	2	06/28/16 12:14	06/28/16 15:36	EPA 3050B	97,6020A	DB
Cadmium, Total	0.5432		mg/kg	0.0317	--	2	06/28/16 12:14	06/28/16 15:36	EPA 3050B	97,6020A	DB
Chromium, Total	5.50		mg/kg	0.317	--	2	06/28/16 12:14	06/28/16 15:36	EPA 3050B	97,6020A	DB
Copper, Total	8.93		mg/kg	0.317	--	2	06/28/16 12:14	06/28/16 15:36	EPA 3050B	97,6020A	DB
Lead, Total	24.7		mg/kg	0.095	--	2	06/28/16 12:14	06/28/16 15:36	EPA 3050B	97,6020A	DB
Nickel, Total	5.77		mg/kg	0.158	--	2	06/28/16 12:14	06/28/16 15:36	EPA 3050B	97,6020A	DB
Zinc, Total	89.0		mg/kg	1.58	--	2	06/28/16 12:14	06/28/16 15:36	EPA 3050B	97,6020A	DB



Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-03

Date Collected: 06/13/16 14:15

Client ID: 08

Date Received: 06/13/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 21%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
-----------	--------	-----------	-------	----	-----	-----------------	---------------	---------------	-------------	-------------------	---------

Total Metals - Mansfield Lab

Mercury, Total	1.08		mg/kg	0.056	--	5	06/27/16 13:58	06/30/16 09:55	EPA 7474	1,7474	LC
----------------	------	--	-------	-------	----	---	----------------	----------------	----------	--------	----

MCP Total Metals - Mansfield Lab

Arsenic, Total	23.9		mg/kg	0.118	--	2	06/28/16 12:14	06/28/16 15:37	EPA 3050B	97,6020A	DB
Cadmium, Total	21.85		mg/kg	0.0472	--	2	06/28/16 12:14	06/28/16 15:37	EPA 3050B	97,6020A	DB
Chromium, Total	161		mg/kg	0.472	--	2	06/28/16 12:14	06/28/16 15:37	EPA 3050B	97,6020A	DB
Copper, Total	140		mg/kg	0.472	--	2	06/28/16 12:14	06/28/16 15:37	EPA 3050B	97,6020A	DB
Lead, Total	401		mg/kg	1.42	--	20	06/28/16 12:14	06/28/16 15:51	EPA 3050B	97,6020A	DB
Nickel, Total	30.5		mg/kg	0.236	--	2	06/28/16 12:14	06/28/16 15:37	EPA 3050B	97,6020A	DB
Zinc, Total	1310		mg/kg	23.6	--	20	06/28/16 12:14	06/28/16 15:51	EPA 3050B	97,6020A	DB



Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-04

Date Collected: 06/13/16 15:00

Client ID: 07

Date Received: 06/13/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 56%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
-----------	--------	-----------	-------	----	-----	-----------------	---------------	---------------	-------------	-------------------	---------

Total Metals - Mansfield Lab

Mercury, Total	0.181		mg/kg	0.020	--	5	06/27/16 13:58	06/30/16 09:57	EPA 7474	1,7474	LC
----------------	-------	--	-------	-------	----	---	----------------	----------------	----------	--------	----

MCP Total Metals - Mansfield Lab

Arsenic, Total	3.30		mg/kg	0.044	--	2	06/28/16 12:14	06/28/16 15:38	EPA 3050B	97,6020A	DB
Cadmium, Total	0.6059		mg/kg	0.0177	--	2	06/28/16 12:14	06/28/16 15:38	EPA 3050B	97,6020A	DB
Chromium, Total	9.31		mg/kg	0.177	--	2	06/28/16 12:14	06/28/16 15:38	EPA 3050B	97,6020A	DB
Copper, Total	23.2		mg/kg	0.177	--	2	06/28/16 12:14	06/28/16 15:38	EPA 3050B	97,6020A	DB
Lead, Total	52.1		mg/kg	0.266	--	10	06/28/16 12:14	06/28/16 15:52	EPA 3050B	97,6020A	DB
Nickel, Total	8.21		mg/kg	0.089	--	2	06/28/16 12:14	06/28/16 15:38	EPA 3050B	97,6020A	DB
Zinc, Total	272		mg/kg	4.43	--	10	06/28/16 12:14	06/28/16 15:52	EPA 3050B	97,6020A	DB



Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-05

Date Collected: 06/13/16 16:00

Client ID: 06

Date Received: 06/13/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 25%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
-----------	--------	-----------	-------	----	-----	-----------------	---------------	---------------	-------------	-------------------	---------

Total Metals - Mansfield Lab

Mercury, Total	0.248		mg/kg	0.043	--	5	06/27/16 13:58	06/30/16 10:14	EPA 7474	1,7474	LC
----------------	-------	--	-------	-------	----	---	----------------	----------------	----------	--------	----

MCP Total Metals - Mansfield Lab

Arsenic, Total	15.0		mg/kg	0.104	--	2	06/28/16 12:14	06/28/16 15:39	EPA 3050B	97,6020A	DB
Cadmium, Total	2.125		mg/kg	0.0417	--	2	06/28/16 12:14	06/28/16 15:39	EPA 3050B	97,6020A	DB
Chromium, Total	17.0		mg/kg	0.417	--	2	06/28/16 12:14	06/28/16 15:39	EPA 3050B	97,6020A	DB
Copper, Total	54.3		mg/kg	0.417	--	2	06/28/16 12:14	06/28/16 15:39	EPA 3050B	97,6020A	DB
Lead, Total	116		mg/kg	0.625	--	10	06/28/16 12:14	06/28/16 15:53	EPA 3050B	97,6020A	DB
Nickel, Total	24.5		mg/kg	0.208	--	2	06/28/16 12:14	06/28/16 15:39	EPA 3050B	97,6020A	DB
Zinc, Total	450		mg/kg	10.4	--	10	06/28/16 12:14	06/28/16 15:53	EPA 3050B	97,6020A	DB



Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-06

Date Collected: 06/14/16 08:00

Client ID: 03

Date Received: 06/14/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 62%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
-----------	--------	-----------	-------	----	-----	-----------------	---------------	---------------	-------------	-------------------	---------

Total Metals - Mansfield Lab

Mercury, Total	0.022		mg/kg	0.018	--	5	06/27/16 13:58	06/30/16 10:17	EPA 7474	1,7474	LC
----------------	-------	--	-------	-------	----	---	----------------	----------------	----------	--------	----

MCP Total Metals - Mansfield Lab

Arsenic, Total	3.18		mg/kg	0.040	--	2	06/28/16 12:14	06/28/16 15:41	EPA 3050B	97,6020A	DB
Cadmium, Total	0.2541		mg/kg	0.0160	--	2	06/28/16 12:14	06/28/16 15:41	EPA 3050B	97,6020A	DB
Chromium, Total	6.31		mg/kg	0.160	--	2	06/28/16 12:14	06/28/16 15:41	EPA 3050B	97,6020A	DB
Copper, Total	8.20		mg/kg	0.160	--	2	06/28/16 12:14	06/28/16 15:41	EPA 3050B	97,6020A	DB
Lead, Total	32.7		mg/kg	0.240	--	10	06/28/16 12:14	06/28/16 15:54	EPA 3050B	97,6020A	DB
Nickel, Total	5.26		mg/kg	0.080	--	2	06/28/16 12:14	06/28/16 15:41	EPA 3050B	97,6020A	DB
Zinc, Total	75.0		mg/kg	4.01	--	10	06/28/16 12:14	06/28/16 15:54	EPA 3050B	97,6020A	DB



Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-07

Date Collected: 06/14/16 08:45

Client ID: 02

Date Received: 06/14/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 44%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
-----------	--------	-----------	-------	----	-----	-----------------	---------------	---------------	-------------	-------------------	---------

Total Metals - Mansfield Lab

Mercury, Total	0.068		mg/kg	0.028	--	5	06/27/16 13:58	06/30/16 10:19	EPA 7474	1,7474	LC
----------------	-------	--	-------	-------	----	---	----------------	----------------	----------	--------	----

MCP Total Metals - Mansfield Lab

Arsenic, Total	4.38		mg/kg	0.058	--	2	06/28/16 12:14	06/28/16 15:47	EPA 3050B	97,6020A	DB
Cadmium, Total	0.6207		mg/kg	0.0231	--	2	06/28/16 12:14	06/28/16 15:47	EPA 3050B	97,6020A	DB
Chromium, Total	35.4		mg/kg	0.231	--	2	06/28/16 12:14	06/28/16 15:47	EPA 3050B	97,6020A	DB
Copper, Total	314		mg/kg	1.15	--	10	06/28/16 12:14	06/28/16 15:56	EPA 3050B	97,6020A	DB
Lead, Total	93.6		mg/kg	0.346	--	10	06/28/16 12:14	06/28/16 15:56	EPA 3050B	97,6020A	DB
Nickel, Total	8.41		mg/kg	0.115	--	2	06/28/16 12:14	06/28/16 15:47	EPA 3050B	97,6020A	DB
Zinc, Total	148		mg/kg	5.77	--	10	06/28/16 12:14	06/28/16 15:56	EPA 3050B	97,6020A	DB



Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-08

Date Collected: 06/14/16 10:30

Client ID: 09

Date Received: 06/14/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 50%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
-----------	--------	-----------	-------	----	-----	-----------------	---------------	---------------	-------------	-------------------	---------

Total Metals - Mansfield Lab

Mercury, Total	0.615		mg/kg	0.023	--	5	06/27/16 13:58	06/30/16 10:22	EPA 7474	1,7474	LC
----------------	-------	--	-------	-------	----	---	----------------	----------------	----------	--------	----

MCP Total Metals - Mansfield Lab

Arsenic, Total	10.0		mg/kg	0.052	--	2	06/28/16 12:14	06/28/16 15:48	EPA 3050B	97,6020A	DB
Cadmium, Total	0.9710		mg/kg	0.0207	--	2	06/28/16 12:14	06/28/16 15:48	EPA 3050B	97,6020A	DB
Chromium, Total	21.1		mg/kg	0.207	--	2	06/28/16 12:14	06/28/16 15:48	EPA 3050B	97,6020A	DB
Copper, Total	101		mg/kg	0.207	--	2	06/28/16 12:14	06/28/16 15:48	EPA 3050B	97,6020A	DB
Lead, Total	144		mg/kg	0.311	--	10	06/28/16 12:14	06/28/16 15:57	EPA 3050B	97,6020A	DB
Nickel, Total	9.31		mg/kg	0.104	--	2	06/28/16 12:14	06/28/16 15:48	EPA 3050B	97,6020A	DB
Zinc, Total	626		mg/kg	25.9	--	50	06/28/16 12:14	06/28/16 16:06	EPA 3050B	97,6020A	DB



Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**SAMPLE RESULTS**

Lab ID: L1618042-11

Date Collected: 06/14/16 15:00

Client ID: 01

Date Received: 06/14/16

Sample Location: BRAINTREE, MA

Field Prep: Not Specified

Matrix: Sediment

Percent Solids: 37%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
-----------	--------	-----------	-------	----	-----	-----------------	---------------	---------------	-------------	-------------------	---------

Total Metals - Mansfield Lab

Mercury, Total	0.067		mg/kg	0.030	--	5	06/27/16 13:58	06/30/16 10:25	EPA 7474	1,7474	LC
----------------	-------	--	-------	-------	----	---	----------------	----------------	----------	--------	----

MCP Total Metals - Mansfield Lab

Arsenic, Total	3.50		mg/kg	0.073	--	2	06/28/16 12:14	06/28/16 15:49	EPA 3050B	97,6020A	DB
Cadmium, Total	1.045		mg/kg	0.0293	--	2	06/28/16 12:14	06/28/16 15:49	EPA 3050B	97,6020A	DB
Chromium, Total	5.62		mg/kg	0.293	--	2	06/28/16 12:14	06/28/16 15:49	EPA 3050B	97,6020A	DB
Copper, Total	139		mg/kg	0.293	--	2	06/28/16 12:14	06/28/16 15:49	EPA 3050B	97,6020A	DB
Lead, Total	26.5		mg/kg	0.439	--	10	06/28/16 12:14	06/28/16 15:58	EPA 3050B	97,6020A	DB
Nickel, Total	4.32		mg/kg	0.146	--	2	06/28/16 12:14	06/28/16 15:49	EPA 3050B	97,6020A	DB
Zinc, Total	2210		mg/kg	36.6	--	50	06/28/16 12:14	06/28/16 16:07	EPA 3050B	97,6020A	DB



Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

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): 01-08,11 Batch: WG908012-1									
Arsenic, Total	ND	mg/kg	0.050	--	2	06/28/16 12:14	06/28/16 15:12	97,6020A	DB
Cadmium, Total	ND	mg/kg	0.0200	--	2	06/28/16 12:14	06/28/16 15:12	97,6020A	DB
Chromium, Total	ND	mg/kg	0.200	--	2	06/28/16 12:14	06/28/16 15:12	97,6020A	DB
Copper, Total	ND	mg/kg	0.200	--	2	06/28/16 12:14	06/28/16 15:12	97,6020A	DB
Lead, Total	ND	mg/kg	0.060	--	2	06/28/16 12:14	06/28/16 15:12	97,6020A	DB
Nickel, Total	ND	mg/kg	0.100	--	2	06/28/16 12:14	06/28/16 15:12	97,6020A	DB
Zinc, Total	ND	mg/kg	1.00	--	2	06/28/16 12:14	06/28/16 15:12	97,6020A	DB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08,11 Batch: WG908018-1									
Mercury, Total	ND	mg/kg	0.013	--	5	06/27/16 13:58	06/30/16 09:28	1,7474	LC

Prep Information

Digestion Method: EPA 7474

Lab Control Sample Analysis Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 01-08,11 Batch: WG908012-2 WG908012-3 SRM Lot Number: D089-540								
Arsenic, Total	94		97		80-120	3		30
Cadmium, Total	92		87		82-117	6		30
Chromium, Total	91		90		79-121	1		30
Copper, Total	95		96		80-119	1		30
Lead, Total	91		89		81-119	2		30
Nickel, Total	99		95		82-117	4		30
Zinc, Total	97		96		80-119	1		30
Total Metals - Mansfield Lab Associated sample(s): 01-08,11 Batch: WG908018-2 WG908018-3 SRM Lot Number: D089-540								
Mercury, Total	154	Q	142		57-143	8		20

Matrix Spike Analysis **Batch Quality Control**

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 01-08,11 QC Batch ID: WG908012-5 QC Sample: L1618042-01 Client ID: 04												
Arsenic, Total	3.02	313	292	92		-	-		75-125	-		35
Cadmium, Total	0.3842	156	131.1	84		-	-		75-125	-		35
Chromium, Total	5.16	313	280	88		-	-		75-125	-		35
Copper, Total	6.15	313	280	88		-	-		75-125	-		35
Lead, Total	12.6	313	261	79		-	-		75-125	-		35
Nickel, Total	4.25	313	276	87		-	-		75-125	-		35
Zinc, Total	67.2	313	342	88		-	-		75-125	-		35
Total Metals - Mansfield Lab Associated sample(s): 01-08,11 QC Batch ID: WG908018-5 QC Sample: L1618042-01 Client ID: 04												
Mercury, Total	ND	1.84	1.99	108		-	-		80-120	-		20

Lab Duplicate Analysis Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Total Metals - Mansfield Lab Associated sample(s): 01-08,11 QC Batch ID: WG908012-4 QC Sample: L1618042-01 Client ID: 04						
Arsenic, Total	3.02	3.56	mg/kg	16		35
Cadmium, Total	0.3842	0.4140	mg/kg	7		35
Chromium, Total	5.16	5.96	mg/kg	14		35
Copper, Total	6.15	7.19	mg/kg	16		35
Lead, Total	12.6	14.5	mg/kg	14		35
Nickel, Total	4.25	4.74	mg/kg	11		35
Zinc, Total	67.2	71.9	mg/kg	7		35
Total Metals - Mansfield Lab Associated sample(s): 01-08,11 QC Batch ID: WG908018-4 QC Sample: L1618042-01 Client ID: 04						
Mercury, Total	ND	ND	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-01
Client ID: 04
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/13/16 10:30
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	6.12		%	0.010	--	1	-	06/21/16 16:30	1,9060A	CM
Total Organic Carbon (Rep2)	5.97		%	0.010	--	1	-	06/21/16 16:30	1,9060A	CM
Grain Size Analysis - Mansfield Lab										
% Total Gravel	0.600		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Coarse Sand	2.30		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Medium Sand	9.80		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Fine Sand	65.7		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Total Fines	21.6		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
General Chemistry - Mansfield Lab										
Solids, Total	30.9		%	0.100	--	1	-	06/15/16 12:05	121,2540G	SP



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-02
Client ID: 05
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/13/16 11:40
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	5.55		%	0.010	--	1	-	06/21/16 16:40	1,9060A	CM
Total Organic Carbon (Rep2)	4.71		%	0.010	--	1	-	06/21/16 16:40	1,9060A	CM
Grain Size Analysis - Mansfield Lab										
% Total Gravel	3.70		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Coarse Sand	4.00		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Medium Sand	15.7		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Fine Sand	58.8		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Total Fines	17.8		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
General Chemistry - Mansfield Lab										
Solids, Total	32.2		%	0.100	--	1	-	06/15/16 12:05	121,2540G	SP



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-03
Client ID: 08
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/13/16 14:15
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	16.6		%	0.010	--	1	-	06/21/16 16:51	1,9060A	CM
Total Organic Carbon (Rep2)	17.3		%	0.010	--	1	-	06/21/16 16:51	1,9060A	CM
Grain Size Analysis - Mansfield Lab										
% Total Gravel	0.200		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Coarse Sand	1.70		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Medium Sand	7.50		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Fine Sand	14.4		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Total Fines	76.2		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
General Chemistry - Mansfield Lab										
Solids, Total	21.3		%	0.100	--	1	-	06/15/16 12:05	121,2540G	SP



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-04
Client ID: 07
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/13/16 15:00
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	11.7		%	0.010	--	1	-	06/22/16 09:46	1,9060A	CM
Total Organic Carbon (Rep2)	11.9		%	0.010	--	1	-	06/22/16 09:46	1,9060A	CM
Grain Size Analysis - Mansfield Lab										
% Total Gravel	8.90		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Coarse Sand	16.5		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Medium Sand	43.8		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Fine Sand	24.4		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Total Fines	6.40		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
General Chemistry - Mansfield Lab										
Solids, Total	56.4		%	0.100	--	1	-	06/15/16 12:05	121,2540G	SP



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-05
Client ID: 06
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/13/16 16:00
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	15.0		%	0.010	--	1	-	06/22/16 08:26	1,9060A	CM
Total Organic Carbon (Rep2)	16.3		%	0.010	--	1	-	06/22/16 08:26	1,9060A	CM
Grain Size Analysis - Mansfield Lab										
% Total Gravel	1.00		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Coarse Sand	6.90		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Medium Sand	20.2		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Fine Sand	41.2		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Total Fines	30.7		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
General Chemistry - Mansfield Lab										
Solids, Total	24.6		%	0.100	--	1	-	06/15/16 12:05	121,2540G	SP



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-06
Client ID: 03
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/14/16 08:00
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	2.22		%	0.010	--	1	-	06/22/16 09:56	1,9060A	CM
Total Organic Carbon (Rep2)	2.47		%	0.010	--	1	-	06/22/16 09:56	1,9060A	CM
Grain Size Analysis - Mansfield Lab										
% Total Gravel	1.30		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Coarse Sand	3.80		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Medium Sand	63.5		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Fine Sand	25.5		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Total Fines	5.90		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
General Chemistry - Mansfield Lab										
Solids, Total	62.4		%	0.100	--	1	-	06/15/16 12:05	121,2540G	SP



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-07
Client ID: 02
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	4.80		%	0.010	--	1	-	06/22/16 10:06	1,9060A	CM
Total Organic Carbon (Rep2)	3.66		%	0.010	--	1	-	06/22/16 10:06	1,9060A	CM
Grain Size Analysis - Mansfield Lab										
% Total Gravel	4.00		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Coarse Sand	4.40		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Medium Sand	27.0		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Fine Sand	47.0		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Total Fines	17.6		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
General Chemistry - Mansfield Lab										
Solids, Total	44.0		%	0.100	--	1	-	06/15/16 12:05	121,2540G	SP



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-08
Client ID: 09
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/14/16 10:30
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	5.07		%	0.010	--	1	-	06/22/16 08:56	1,9060A	CM
Total Organic Carbon (Rep2)	5.18		%	0.010	--	1	-	06/22/16 08:56	1,9060A	CM
Grain Size Analysis - Mansfield Lab										
% Total Gravel	19.6		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Coarse Sand	11.4		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Medium Sand	18.4		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Fine Sand	32.2		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Total Fines	18.4		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
General Chemistry - Mansfield Lab										
Solids, Total	49.7		%	0.100	--	1	-	06/15/16 12:05	121,2540G	SP



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

SAMPLE RESULTS

Lab ID: L1618042-11
Client ID: 01
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/14/16 15:00
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Organic Carbon - Mansfield Lab										
Total Organic Carbon (Rep1)	11.0		%	0.010	--	1	-	06/22/16 09:06	1,9060A	CM
Total Organic Carbon (Rep2)	11.7		%	0.010	--	1	-	06/22/16 09:06	1,9060A	CM
Grain Size Analysis - Mansfield Lab										
% Total Gravel	ND		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Coarse Sand	1.10		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Medium Sand	3.70		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Fine Sand	22.2		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
% Total Fines	73.0		%	0.100	NA	1	-	06/17/16 00:00	12,D422	LC
General Chemistry - Mansfield Lab										
Solids, Total	36.7		%	0.100	--	1	-	06/15/16 12:05	121,2540G	SP



Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**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): 01-08,11 Batch: WG906640-1										
Total Organic Carbon (Rep1)	ND		%	0.010	--	1	-	06/21/16 15:53	1,9060A	CM
Total Organic Carbon (Rep2)	ND		%	0.010	--	1	-	06/21/16 15:53	1,9060A	CM

Matrix Spike Analysis

Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1618042

Project Number: 1760

Report Date: 06/30/16

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): 01-08,11 QC Batch ID: WG906640-4 QC Sample: L1618042-01 Client ID: 04												
Total Organic Carbon (Rep1)	6.12	1.09	7.44	121		-	-		75-125	-		25
Total Organic Carbon (Rep2)	5.97	1.03	6.36	38	Q	-	-		75-125	-		25

Lab Duplicate Analysis Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-08,11 QC Batch ID: WG904192-1 QC Sample: L1618042-01 Client ID: 04						
Solids, Total	30.9	31.9	%	3		10
Grain Size Analysis - Mansfield Lab Associated sample(s): 01-08,11 QC Batch ID: WG905087-1 QC Sample: L1618042-01 Client ID: 04						
% Total Gravel	0.600	ND	%	NC		20
% Coarse Sand	2.30	2.10	%	9		20
% Medium Sand	9.80	9.80	%	0		20
% Fine Sand	65.7	65.9	%	0		20
% Total Fines	21.6	22.2	%	3		20
Total Organic Carbon - Mansfield Lab Associated sample(s): 01-08,11 QC Batch ID: WG906640-3 QC Sample: L1618042-01 Client ID: 04						
Total Organic Carbon (Rep1)	6.12	5.81	%	5		25
Total Organic Carbon (Rep2)	5.97	7.10	%	17		25

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1618042**Project Number:** 1760**Report Date:** 06/30/16**S.R.M. Standard Quality Control**

Standard Reference Material (SRM): WG906640-2

Parameter	% Recovery	Qual	QC Criteria
Total Organic Carbon (Rep1)	89		75-125
Total Organic Carbon (Rep2)	89		75-125

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 06/14/2016 23:42

Cooler Information Custody Seal

Cooler

A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1618042-01A	Vial MeOH preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-01B	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-01C	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-01D	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-CR-MCP6020T-10(180),A2-HG-7474T(28),A2-AS-MCP6020T-10(180),A2-CD-MCP6020T-10(180),A2-ZN-MCP6020T-10(180),A2-CU-MCP6020T-10(180),A2-HGPREP-AF(28),A2-NI-MCP6020T-10(180),A2-PB-MCP6020T-10(180),A2-PREP-3050:2T(180)
L1618042-01E	Plastic 8oz unpreserved for Grai	A	N/A	4.7	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND()
L1618042-01F	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-TS(7),A2-TOC-9060-2REPS(28),A2-PAH/PCBCONG(14)
L1618042-01G	Glass 120ml/4oz unpreserved	A	N/A	4.7	Y	Absent	EPH-10(14)
L1618042-02A	Vial MeOH preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-02B	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-02C	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-02D	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-CR-MCP6020T-10(180),A2-HG-7474T(28),A2-AS-MCP6020T-10(180),A2-CD-MCP6020T-10(180),A2-ZN-MCP6020T-10(180),A2-CU-MCP6020T-10(180),A2-HGPREP-AF(28),A2-NI-MCP6020T-10(180),A2-PB-MCP6020T-10(180),A2-PREP-3050:2T(180)

*Values in parentheses indicate holding time in days



Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1618042-02E	Plastic 8oz unpreserved for Grai	A	N/A	4.7	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND()
L1618042-02F	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-TS(7),A2-TOC-9060-2REPS(28),A2-PAH/PCBCONG(14)
L1618042-02G	Glass 120ml/4oz unpreserved	A	N/A	4.7	Y	Absent	EPH-10(14)
L1618042-03A	Vial MeOH preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-03B	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-03C	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-03D	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-CR-MCP6020T-10(180),A2-HG-7474T(28),A2-AS-MCP6020T-10(180),A2-CD-MCP6020T-10(180),A2-ZN-MCP6020T-10(180),A2-CU-MCP6020T-10(180),A2-HGPREP-AF(28),A2-NI-MCP6020T-10(180),A2-PB-MCP6020T-10(180),A2-PREP-3050:2T(180)
L1618042-03E	Plastic 8oz unpreserved for Grai	A	N/A	4.7	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND()
L1618042-03F	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-TS(7),A2-TOC-9060-2REPS(28),A2-PAH/PCBCONG(14)
L1618042-03G	Glass 120ml/4oz unpreserved	A	N/A	4.7	Y	Absent	EPH-10(14)
L1618042-04A	Vial MeOH preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-04B	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-04C	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-04D	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-CR-MCP6020T-10(180),A2-HG-7474T(28),A2-AS-MCP6020T-10(180),A2-CD-MCP6020T-10(180),A2-ZN-MCP6020T-10(180),A2-CU-MCP6020T-10(180),A2-HGPREP-AF(28),A2-NI-MCP6020T-10(180),A2-PB-MCP6020T-10(180),A2-PREP-3050:2T(180)
L1618042-04E	Plastic 8oz unpreserved for Grai	A	N/A	4.7	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND()
L1618042-04F	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-TS(7),A2-TOC-9060-2REPS(28),A2-PAH/PCBCONG(14)

*Values in parentheses indicate holding time in days



Project Name: ARMSTRONG DAM REMOVAL**Project Number:** 1760**Lab Number:** L1618042**Report Date:** 06/30/16**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1618042-04G	Glass 120ml/4oz unpreserved	A	N/A	4.7	Y	Absent	EPH-10(14)
L1618042-05A	Vial MeOH preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-05B	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-05C	Vial water preserved	A	N/A	4.7	Y	Absent	MCP-8260HLW-10(14)
L1618042-05D	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-CR-MCP6020T-10(180),A2-HG-7474T(28),A2-AS-MCP6020T-10(180),A2-CD-MCP6020T-10(180),A2-ZN-MCP6020T-10(180),A2-CU-MCP6020T-10(180),A2-HGPREP-AF(28),A2-NI-MCP6020T-10(180),A2-PB-MCP6020T-10(180),A2-PREP-3050:2T(180)
L1618042-05E	Plastic 8oz unpreserved for Grai	A	N/A	4.7	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND()
L1618042-05F	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-TS(7),A2-TOC-9060-2REPS(28),A2-PAH/PCBCONG(14)
L1618042-05G	Glass 120ml/4oz unpreserved	A	N/A	4.7	Y	Absent	EPH-10(14)
L1618042-06A	Vial MeOH preserved	B	N/A	4.1	Y	Absent	MCP-8260HLW-10(14)
L1618042-06B	Vial water preserved	B	N/A	4.1	Y	Absent	MCP-8260HLW-10(14)
L1618042-06C	Vial water preserved	B	N/A	4.1	Y	Absent	MCP-8260HLW-10(14)
L1618042-06D	Glass 250ml/8oz unpreserved	B	N/A	4.1	Y	Absent	A2-CR-MCP6020T-10(180),A2-HG-7474T(28),A2-AS-MCP6020T-10(180),A2-CD-MCP6020T-10(180),A2-ZN-MCP6020T-10(180),A2-CU-MCP6020T-10(180),A2-HGPREP-AF(28),A2-NI-MCP6020T-10(180),A2-PB-MCP6020T-10(180),A2-PREP-3050:2T(180)
L1618042-06E	Plastic 8oz unpreserved for Grai	B	N/A	4.1	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND()
L1618042-06F	Glass 250ml/8oz unpreserved	B	N/A	4.1	Y	Absent	A2-TS(7),A2-TOC-9060-2REPS(28),A2-PAH/PCBCONG(14)
L1618042-06G	Glass 120ml/4oz unpreserved	B	N/A	4.1	Y	Absent	EPH-10(14)
L1618042-07A	Vial MeOH preserved	B	N/A	4.1	Y	Absent	MCP-8260H-10(14),MCP-8260HLW-10(14)
L1618042-07B	Vial water preserved	B	N/A	4.1	Y	Absent	MCP-8260H-10(14),MCP-8260HLW-10(14)
L1618042-07C	Vial water preserved	B	N/A	4.1	Y	Absent	MCP-8260H-10(14),MCP-8260HLW-10(14)

*Values in parentheses indicate holding time in days



Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1618042

Report Date: 06/30/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1618042-07D	Glass 250ml/8oz unpreserved	B	N/A	4.1	Y	Absent	A2-CR-MCP6020T-10(180),A2-HG-7474T(28),A2-AS-MCP6020T-10(180),A2-CD-MCP6020T-10(180),A2-ZN-MCP6020T-10(180),A2-CU-MCP6020T-10(180),A2-HGPREP-AF(28),A2-NI-MCP6020T-10(180),A2-PB-MCP6020T-10(180),A2-PREP-3050:2T(180)
L1618042-07E	Plastic 8oz unpreserved for Grai	B	N/A	4.1	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND()
L1618042-07F	Glass 250ml/8oz unpreserved	B	N/A	4.1	Y	Absent	A2-TS(7),A2-TOC-9060-2REPS(28),A2-PAH/PCBCONG(14)
L1618042-07G	Glass 120ml/4oz unpreserved	B	N/A	4.1	Y	Absent	EPH-10(14)
L1618042-08A	Vial MeOH preserved	B	N/A	4.1	Y	Absent	MCP-8260HLW-10(14)
L1618042-08B	Vial water preserved	B	N/A	4.1	Y	Absent	MCP-8260HLW-10(14)
L1618042-08C	Vial water preserved	B	N/A	4.1	Y	Absent	MCP-8260HLW-10(14)
L1618042-08D	Glass 250ml/8oz unpreserved	B	N/A	4.1	Y	Absent	A2-CR-MCP6020T-10(180),A2-HG-7474T(28),A2-AS-MCP6020T-10(180),A2-CD-MCP6020T-10(180),A2-ZN-MCP6020T-10(180),A2-CU-MCP6020T-10(180),A2-HGPREP-AF(28),A2-NI-MCP6020T-10(180),A2-PB-MCP6020T-10(180),A2-PREP-3050:2T(180)
L1618042-08E	Plastic 8oz unpreserved for Grai	B	N/A	4.1	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND()
L1618042-08F	Glass 250ml/8oz unpreserved	B	N/A	4.1	Y	Absent	A2-TS(7),A2-TOC-9060-2REPS(28),A2-PAH/PCBCONG(14)
L1618042-08G	Glass 120ml/4oz unpreserved	B	N/A	4.1	Y	Absent	EPH-10(14)
L1618042-09A	Vial MeOH preserved	C	N/A	5.1	Y	Absent	HOLD-8260(14)
L1618042-09B	Vial water preserved	C	N/A	5.1	Y	Absent	HOLD-8260(14)
L1618042-09C	Vial water preserved	C	N/A	5.1	Y	Absent	HOLD-8260(14)
L1618042-09D	Glass 250ml/8oz unpreserved	C	N/A	5.1	Y	Absent	A2-ARCHIVE()
L1618042-09E	Plastic 8oz unpreserved for Grai	C	N/A	5.1	Y	Absent	A2-ARCHIVE()
L1618042-09F	Glass 250ml/8oz unpreserved	C	N/A	5.1	Y	Absent	A2-ARCHIVE()
L1618042-09G	Glass 120ml/4oz unpreserved	C	N/A	5.1	Y	Absent	HOLD-EPH(14)
L1618042-10A	Vial MeOH preserved	C	N/A	5.1	Y	Absent	HOLD-8260(14)
L1618042-10B	Vial water preserved	C	N/A	5.1	Y	Absent	HOLD-8260(14)

*Values in parentheses indicate holding time in days



Project Name: ARMSTRONG DAM REMOVAL**Project Number:** 1760**Lab Number:** L1618042**Report Date:** 06/30/16**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1618042-10C	Vial water preserved	C	N/A	5.1	Y	Absent	HOLD-8260(14)
L1618042-10D	Glass 250ml/8oz unpreserved	C	N/A	5.1	Y	Absent	A2-ARCHIVE()
L1618042-10E	Plastic 8oz unpreserved for Grai	C	N/A	5.1	Y	Absent	A2-ARCHIVE()
L1618042-10F	Glass 250ml/8oz unpreserved	C	N/A	5.1	Y	Absent	A2-ARCHIVE()
L1618042-10G	Glass 120ml/4oz unpreserved	C	N/A	5.1	Y	Absent	HOLD-EPH(14)
L1618042-11A	Vial MeOH preserved	C	N/A	5.1	Y	Absent	MCP-8260HLW-10(14)
L1618042-11B	Vial water preserved	C	N/A	5.1	Y	Absent	MCP-8260HLW-10(14)
L1618042-11C	Vial water preserved	C	N/A	5.1	Y	Absent	MCP-8260HLW-10(14)
L1618042-11D	Glass 250ml/8oz unpreserved	C	N/A	5.1	Y	Absent	A2-CR-MCP6020T-10(180),A2-HG-7474T(28),A2-AS-MCP6020T-10(180),A2-CD-MCP6020T-10(180),A2-ZN-MCP6020T-10(180),A2-CU-MCP6020T-10(180),A2-HGPREP-AF(28),A2-NI-MCP6020T-10(180),A2-PB-MCP6020T-10(180),A2-PREP-3050:2T(180)
L1618042-11E	Plastic 8oz unpreserved for Grai	C	N/A	5.1	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND()
L1618042-11F	Glass 250ml/8oz unpreserved	C	N/A	5.1	Y	Absent	A2-TS(7),A2-TOC-9060-2REPS(28),A2-PAH/PCBCONG(14)
L1618042-11G	Glass 120ml/4oz unpreserved	C	N/A	5.1	Y	Absent	EPH-10(14)

*Values in parentheses indicate holding time in days



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: Data Usability Report



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

Data Qualifiers

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1618042
Report Date: 06/30/16

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 12 Annual Book of ASTM Standards. (American Society for Testing and Materials) ASTM International.
- 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.
- 98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.
- 105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.
- 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.

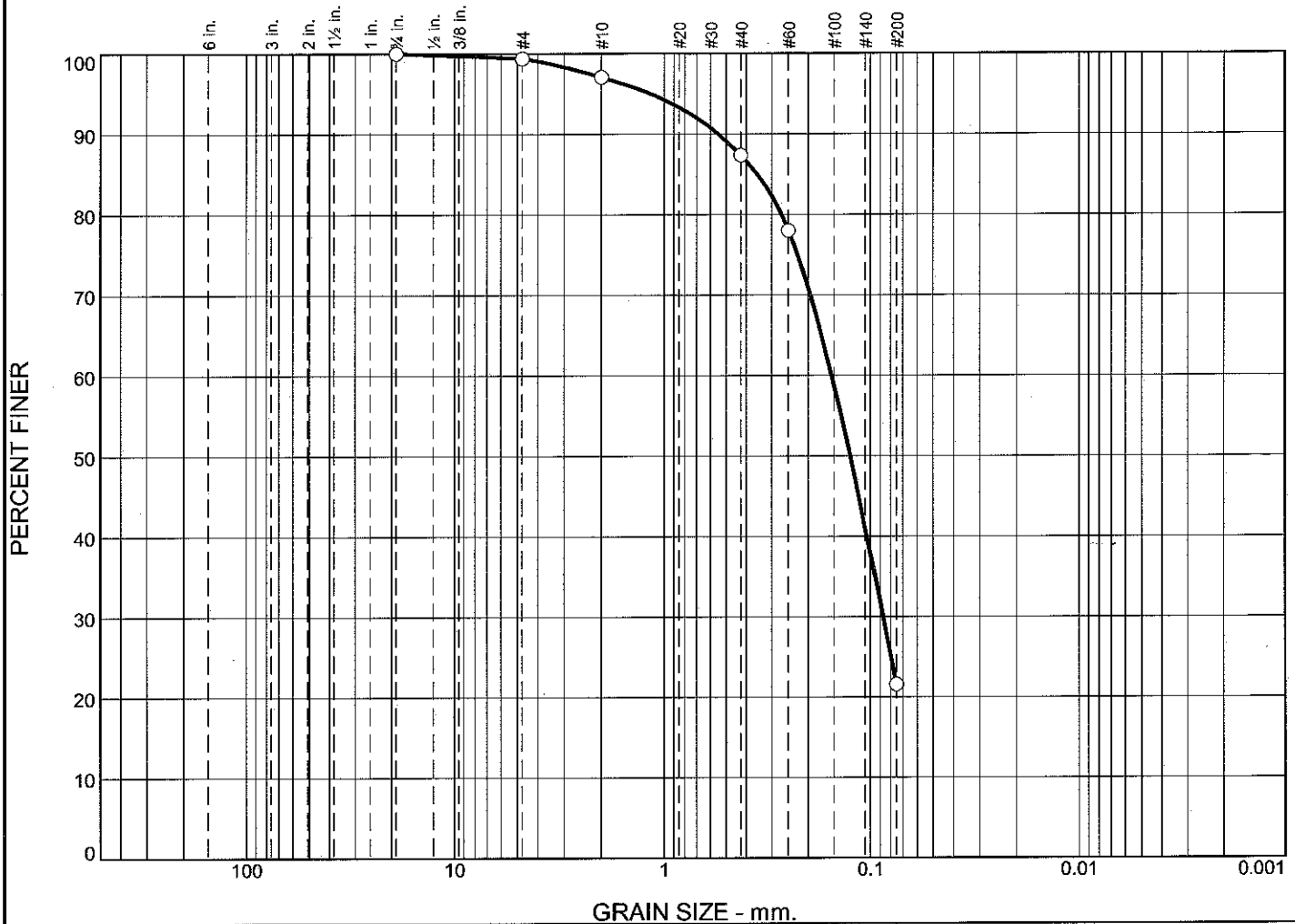
We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



ASTM D422-63

GRAIN SIZE ANALYSIS

Particle Size Distribution Report



	% +3"		% Gravel		% Sand			% Fines		
			Coarse	Fine	Coarse	Medium	Fine	Silt		Clay
☐	0.0		0.0	0.6	2.3	9.8	65.7	21.6		
☒	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
☐			0.3541	0.1544	0.1258	0.0870				

Material Description							USCS	AASHTO
☐								

Project No.

Client:

Project:

Remarks:

☐ Source of Sample: 04

Sample Number: L1618042-01

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 04

Sample Number: L1618042-01

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 38.53
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
38.53	0.00	3/4"	0.00	0.00	100.0
		#4	0.24	0.00	99.4
		#10	0.89	0.00	97.1
		#40	3.75	0.00	87.3
		#60	3.59	0.00	78.0
		#200	21.75	0.00	21.6

Fractional Components

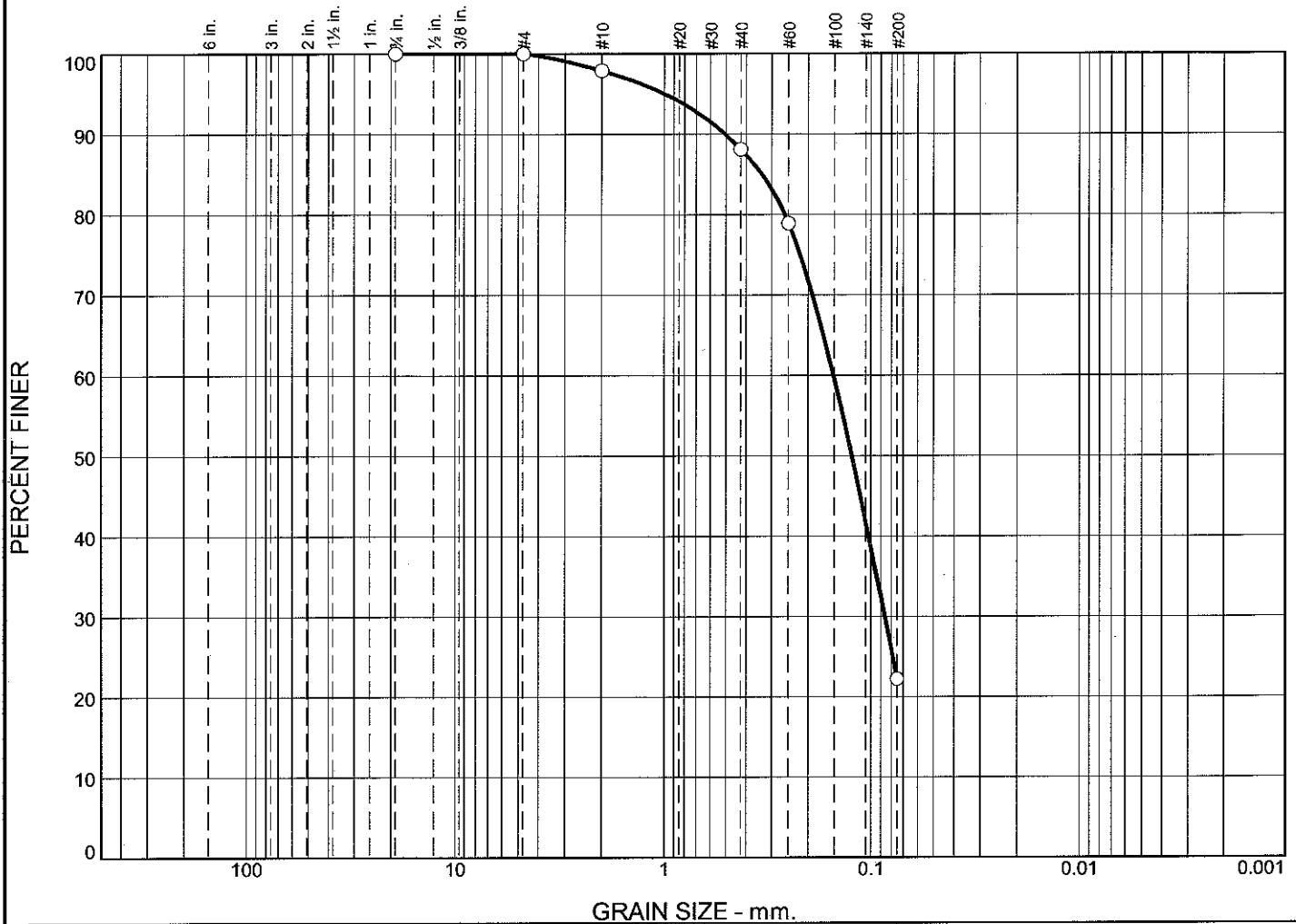
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.6	0.6	2.3	9.8	65.7	77.8			21.6

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
			0.0870	0.1258	0.1544	0.2704	0.3541	0.5503	1.1681

Fineness
Modulus

0.77

Particle Size Distribution Report



GRAIN SIZE - mm.										
% +3"			% Gravel		% Sand			% Fines		
			Coarse	Fine	Coarse	Medium	Fine	Silt		Clay
☐	0.0		0.0	0.0	2.1	9.8	65.9	22.2		
☒	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
☐			0.3354	0.1516	0.1239	0.0860				

Material Description							USCS	AASHTO
☐								

Project No. Project: ☐ Source of Sample: 04 Sample Number: WG905087-1	Remarks:
Alpha Analytical Mansfield, MA	

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 04

Sample Number: WG905087-1

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 36.85
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
36.85	0.00	3/4"	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.78	0.00	97.9
		#40	3.60	0.00	88.1
		#60	3.40	0.00	78.9
		#200	20.88	0.00	22.2

Fractional Components

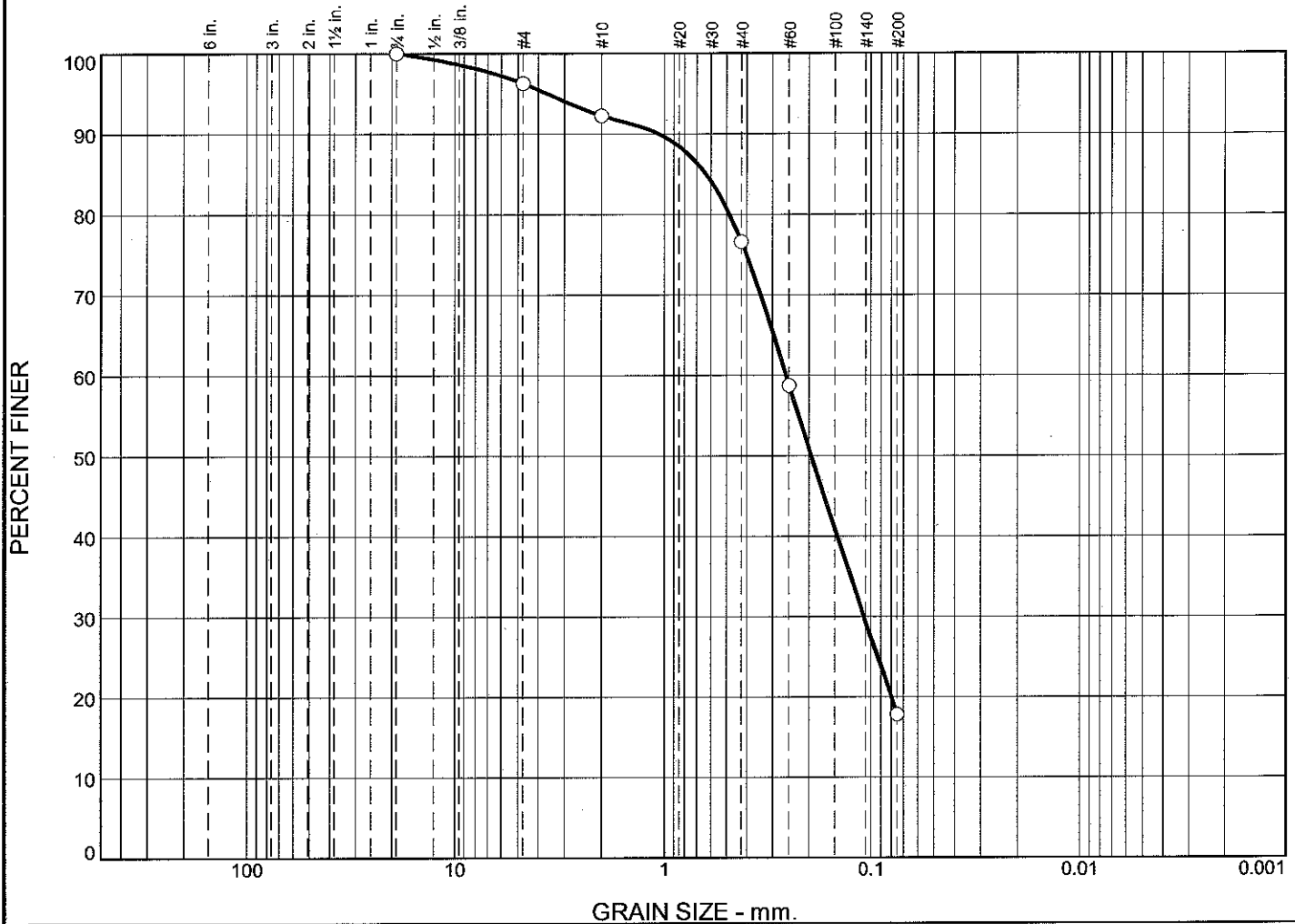
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	2.1	9.8	65.9	77.8			22.2

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
			0.0860	0.1239	0.1516	0.2609	0.3354	0.5080	0.9962

**Fineness
Modulus**

0.72

Particle Size Distribution Report



GRAIN SIZE - mm.									
% +3"	% Gravel		% Sand			% Fines			
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay		
○ 0.0	0.0	3.7	4.0	15.7	58.8	17.8			
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c
○			0.6338	0.2591	0.1955	0.1084			

Material Description							USCS	AASHTO
○								

Project No. _____ Client: _____ Project: _____ ○ Source of Sample: 05 Sample Number: L1618042-02	Remarks: Figure
Alpha Analytical Mansfield, MA	

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 05

Sample Number: L1618042-02

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 55.37
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
55.37	0.00	3/4"	0.00	0.00	100.0
		#4	2.06	0.00	96.3
		#10	2.22	0.00	92.3
		#40	8.68	0.00	76.6
		#60	9.90	0.00	58.7
		#200	22.63	0.00	17.8

Fractional Components

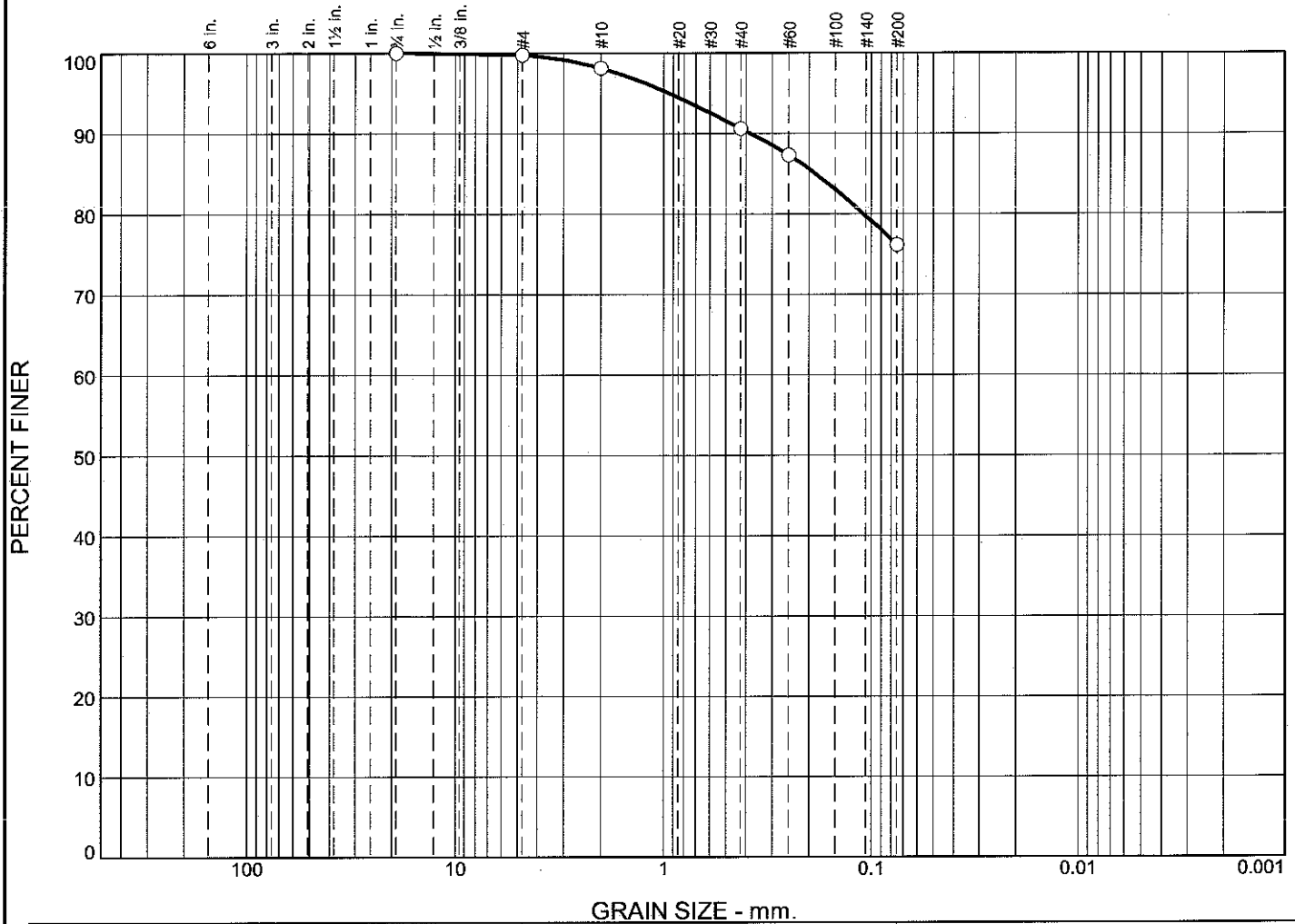
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	3.7	3.7	4.0	15.7	58.8	78.5			17.8

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
		0.0801	0.1084	0.1955	0.2591	0.4864	0.6338	1.0618	3.6286

Fineness
Modulus

1.31

Particle Size Distribution Report



GRAIN SIZE - mm.											
% +3"		% Gravel		% Sand			% Fines				
		Coarse	Fine	Coarse	Medium	Fine	Silt		Clay		
○	0.0		0.0	0.2	1.7	7.5	14.4	76.2			
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u	
○			0.1865								

Material Description							USCS	AASHTO

Project No.

Client:

Remarks:

Project:

Source of Sample: 08

Sample Number: L1618042-03

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 08

Sample Number: L1618042-03

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 40.18
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
40.18	0.00	3/4"	0.00	0.00	100.0
		#4	0.09	0.00	99.8
		#10	0.66	0.00	98.1
		#40	3.02	0.00	90.6
		#60	1.33	0.00	87.3
		#200	4.48	0.00	76.2

Fractional Components

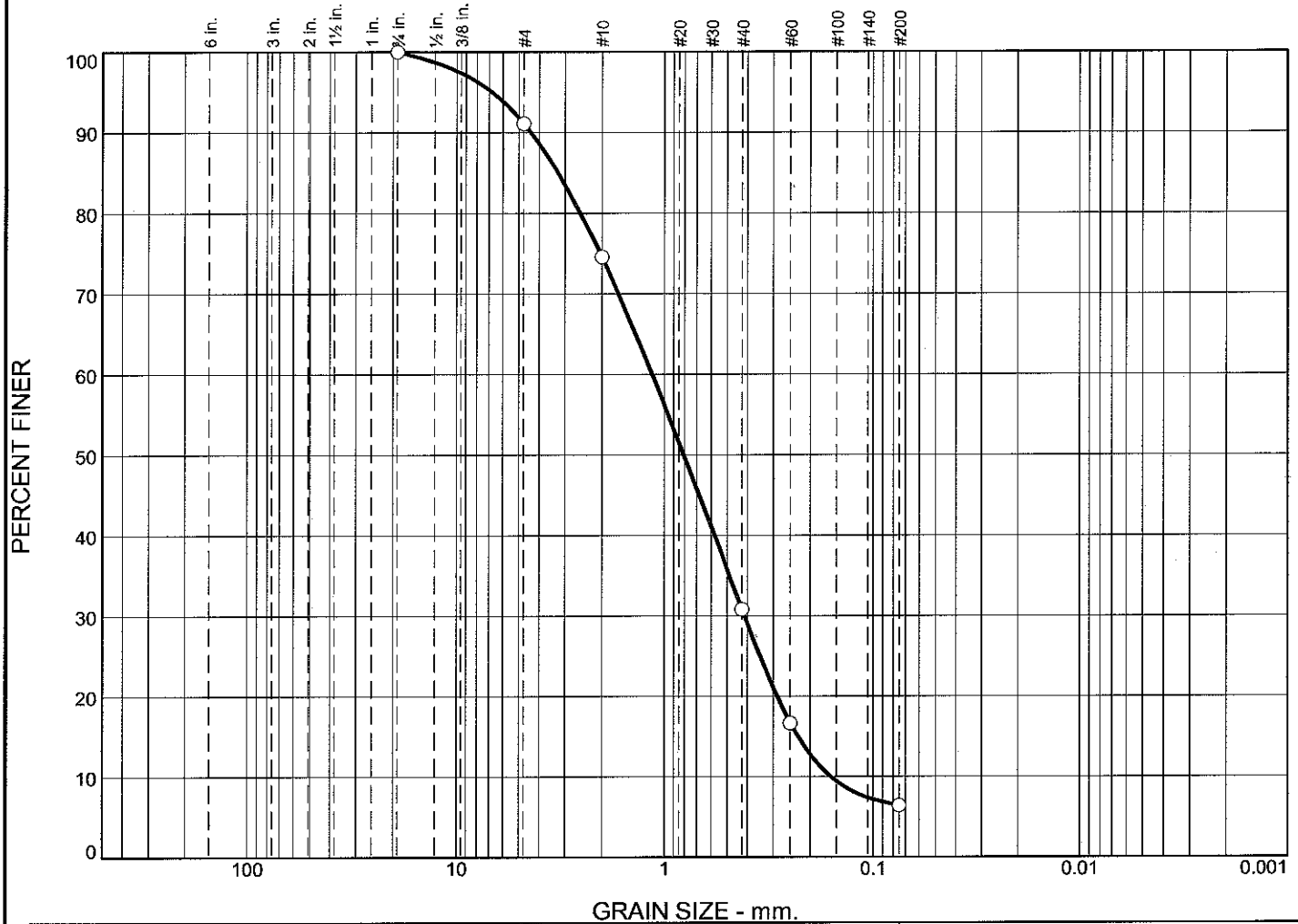
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.2	0.2	1.7	7.5	14.4	23.6			76.2

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
						0.1093	0.1865	0.3820	0.9423

**Fineness
Modulus**

0.41

Particle Size Distribution Report



	% +3"		% Gravel		% Sand			% Fines		
			Coarse	Fine	Coarse	Medium	Fine	Silt		Clay
○	0.0		0.0	8.9	16.5	43.8	24.4	6.4		
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○			3.2525	1.1458	0.8092	0.4136	0.2299	0.1600	0.93	7.16

Material Description								USCS	AASHTO
○									

Project No. Project: ○ Source of Sample: 07 Sample Number: L1618042-04	Client: Alpha Analytical Mansfield, MA	Remarks: Figure
---	--	------------------------

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 07

Sample Number: L1618042-04

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 89.65
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
89.65	0.00	3/4"	0.00	0.00	100.0
		#4	7.97	0.00	91.1
		#10	14.83	0.00	74.6
		#40	39.23	0.00	30.8
		#60	12.69	0.00	16.7
		#200	9.16	0.00	6.4

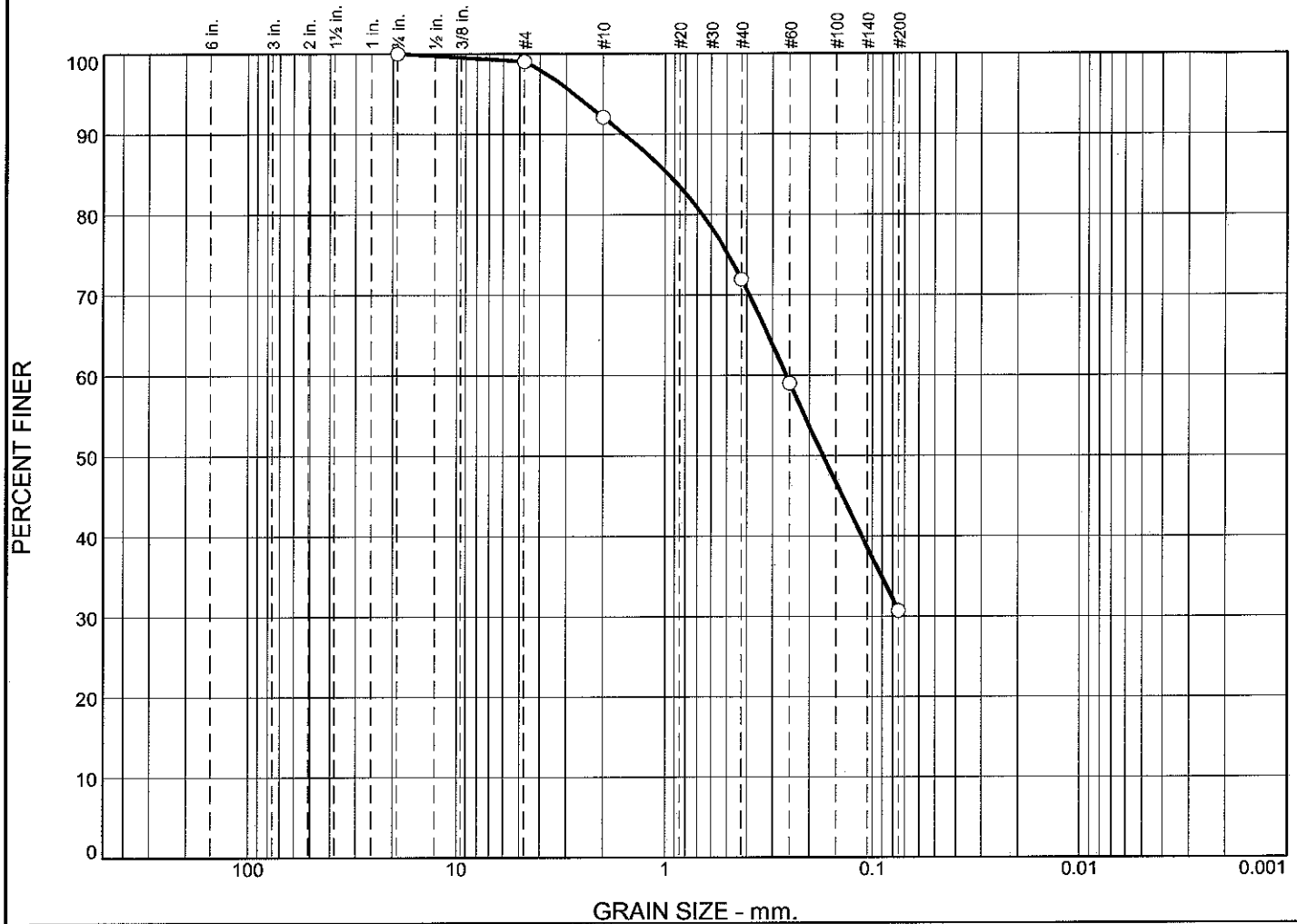
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	8.9	8.9	16.5	43.8	24.4	84.7			6.4

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.1600	0.2299	0.2890	0.4136	0.8092	1.1458	2.5381	3.2525	4.3885	6.7733

Fineness Modulus	C _u	C _c
3.01	7.16	0.93

Particle Size Distribution Report



	% +3"		% Gravel		% Sand			% Fines		
			Coarse	Fine	Coarse	Medium	Fine	Silt		Clay
☐	0.0		0.0	1.0	6.9	20.2	41.2	30.7		
☒	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
☐			0.9665	0.2598	0.1728					

Material Description							USCS	AASHTO
☐								

Project No. Project: ☐ Source of Sample: 06 Sample Number: L1618042-05	Client: Alpha Analytical Mansfield, MA	Remarks: Figure
--	---	--------------------------------------

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 06

Sample Number: L1618042-05

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 36.27
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
36.27	0.00	3/4"	0.00	0.00	100.0
		#4	0.36	0.00	99.0
		#10	2.50	0.00	92.1
		#40	7.32	0.00	71.9
		#60	4.68	0.00	59.0
		#200	10.27	0.00	30.7

Fractional Components

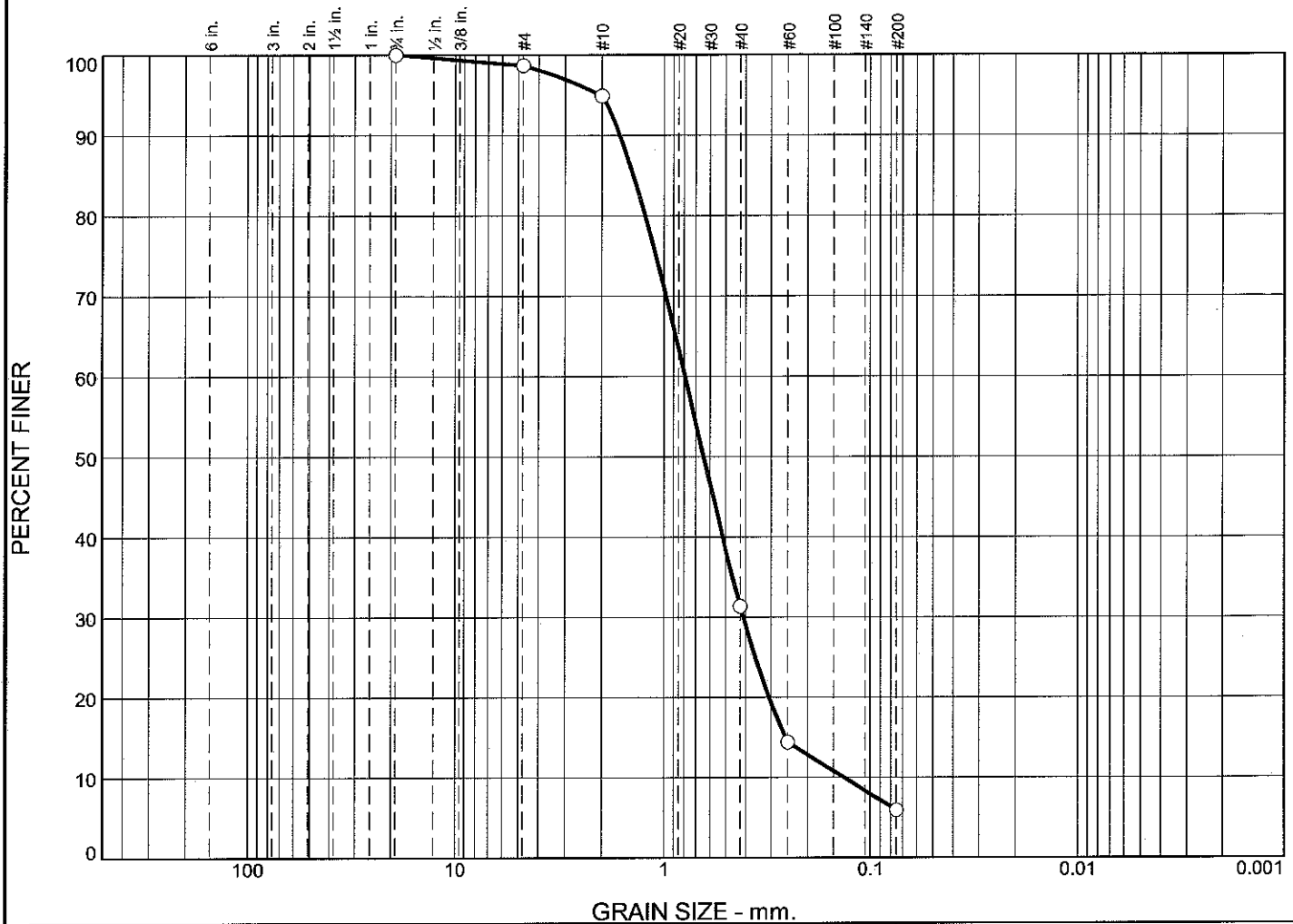
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	1.0	1.0	6.9	20.2	41.2	68.3			30.7

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
				0.1728	0.2598	0.6617	0.9665	1.5852	2.7510

**Fineness
Modulus**

1.32

Particle Size Distribution Report



GRAVEL SIZE - mm											
% +3"		% Gravel		% Sand			% Fines				
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay			
○	0.0		0.0	1.3	3.8	63.5	25.5	5.9			
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u	
○			1.4087	0.7920	0.6432	0.4107	0.2566	0.1339	1.59	5.92	
Material Description								USCS	AASHTO		
○											

Project No.

Client:

Remarks:

Project:

○ Source of Sample: 03

Sample Number: L1618042-06

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 03

Sample Number: L1618042-06

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 129.14

Tare Wt. = 0.00

Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
129.14	0.00	3/4"	0.00	0.00	100.0
		#4	1.72	0.00	98.7
		#10	4.85	0.00	94.9
		#40	82.06	0.00	31.4
		#60	21.91	0.00	14.4
		#200	10.96	0.00	5.9

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	1.3	1.3	3.8	63.5	25.5	92.8			5.9

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.1339	0.2566	0.3088	0.4107	0.6432	0.7920	1.2355	1.4087	1.6404	2.0314

Fineness Modulus	C _u	C _c
2.51	5.92	1.59

Alpha Analytical

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 02

Sample Number: L1618042-07

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 83.55

Tare Wt. = 0.00

Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
83.55	0.00	.375	0.00	0.00	100.0
		#4	3.37	0.00	96.0
		#10	3.62	0.00	91.6
		#40	22.60	0.00	64.6
		#60	16.89	0.00	44.4
		#200	22.37	0.00	17.6

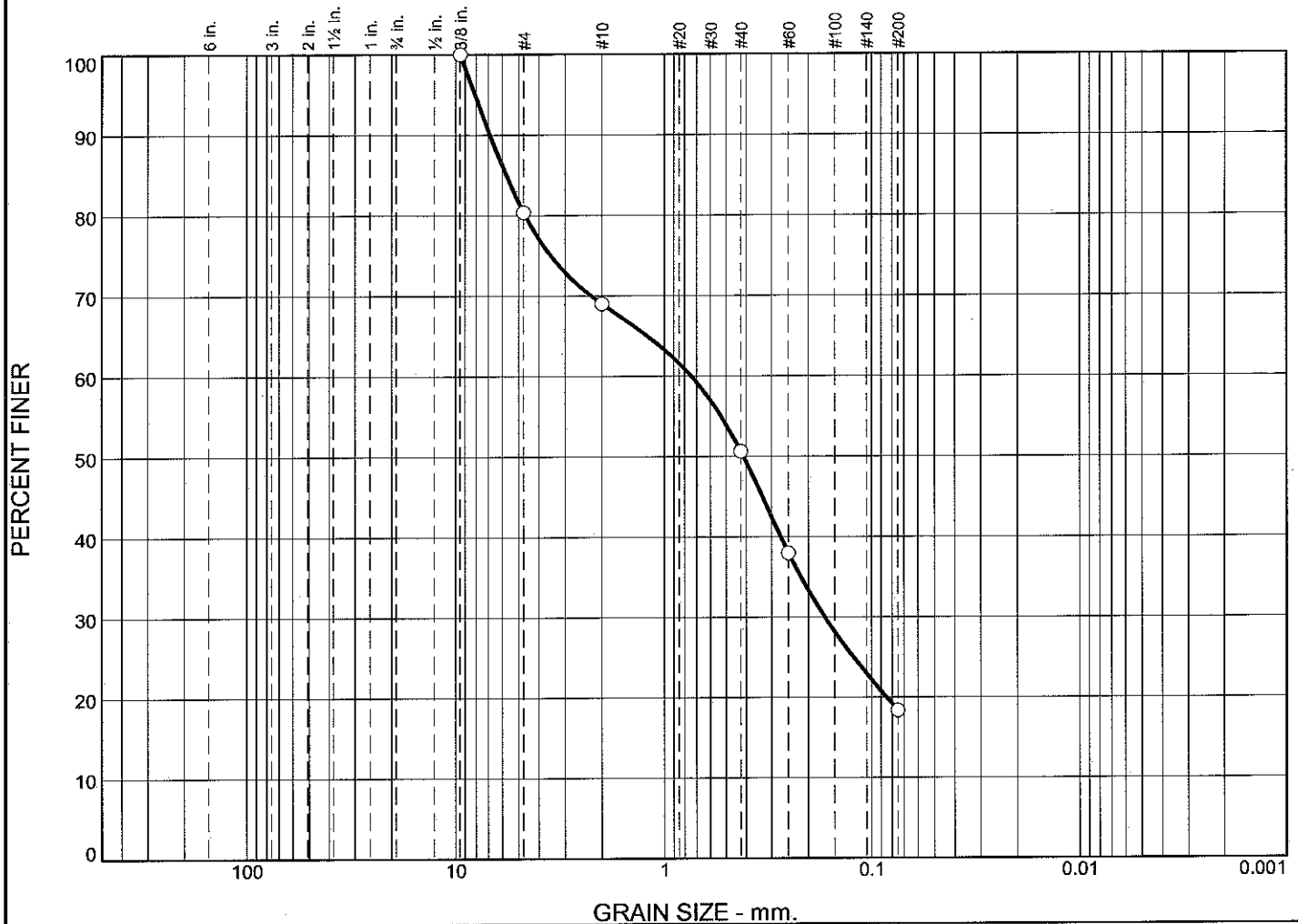
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	4.0	4.0	4.4	27.0	47.0	78.4			17.6

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
		0.0873	0.1499	0.2909	0.3755	0.7479	1.0024	1.5877	3.8875

Fineness Modulus
1.68

Particle Size Distribution Report



GRAIN SIZE - mm.									
% +3"	% Gravel		% Sand			% Fines			
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay		
0.0	0.0	19.6	11.4	18.4	32.2	18.4			
LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
		5.7549	0.7446	0.4130	0.1675				

Material Description							USCS	AASHTO

Project No.

Client:

Remarks:

Project:

Source of Sample: 09

Sample Number: L1618042-08

Alpha Analytical

Mansfield, MA

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 09

Sample Number: L1618042-08

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 103.30

Tare Wt. = 0.00

Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
103.30	0.00	.375	0.00	0.00	100.0
		#4	20.28	0.00	80.4
		#10	11.72	0.00	69.0
		#40	19.00	0.00	50.6
		#60	13.07	0.00	38.0
		#200	20.27	0.00	18.4

Fractional Components

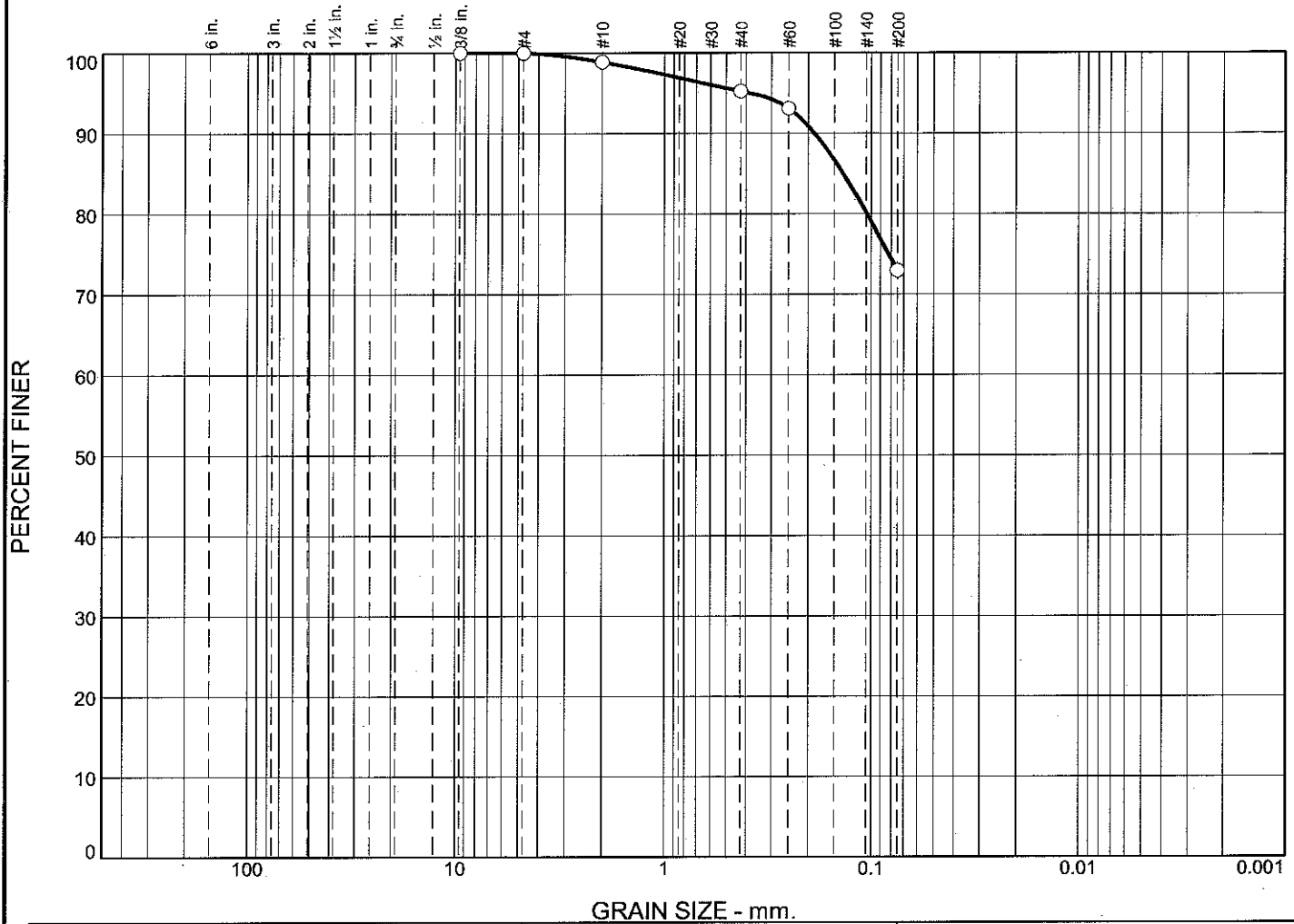
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	19.6	19.6	11.4	18.4	32.2	62.0			18.4

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
		0.0851	0.1675	0.4130	0.7446	4.6692	5.7549	6.8822	8.1192

**Fineness
Modulus**

2.57

Particle Size Distribution Report



	% +3"		% Gravel		% Sand			% Fines		
			Coarse	Fine	Coarse	Medium	Fine	Silt		Clay
○	0.0		0.0	0.0	1.1	3.7	22.2	73.0		
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○			0.1367							

Material Description							USCS	AASHTO
○								

Project No. Project: ○ Source of Sample: 01 Sample Number: L1618042-11	Remarks:
Alpha Analytical Mansfield, MA	

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

6/21/2016

Location: 01

Sample Number: L1618042-11

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 54.29
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
54.29	0.00	.375	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	0.62	0.00	98.9
		#40	1.97	0.00	95.2
		#60	1.16	0.00	93.1
		#200	10.93	0.00	73.0

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	1.1	3.7	22.2	27.0			73.0

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
						0.1052	0.1367	0.1876	0.3838

Fineness Modulus
0.26

Certification Information

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

Westborough Facility

EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene

EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene

EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.

EPA 1010A: NPW: Ignitability

EPA 6010C: NPW: Strontium; SCM: Strontium

EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation

EPA 9038: NPW: Sulfate

EPA 9050A: NPW: Specific Conductance

EPA 9056: NPW: Chloride, Nitrate, Sulfate

EPA 9065: NPW: Phenols

EPA 9251: NPW: Chloride

SM3500: NPW: Ferrous Iron

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

SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam

EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane

SM 2540D: TSS

SM2540G: SCM: Percent Solids

EPA 1631E: SCM: Mercury

EPA 7474: SCM: Mercury

EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.

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

EPA 8270-SIM: NPW and SCM: Alkylated PAHs.

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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.

Biological Tissue Matrix: **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO₃-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1,**

SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate.

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

Non-Potable Water

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;

EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH₃-BH, EPA

350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO₃-F,**

EPA 353.2: Nitrate-N, **SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D,**

EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618042

Instrument ID: Voa100.i Calibration Date: 27-JUN-2016 Time: 11:51

Lab File ID: 0627N02 Init. Calib. Date(s): 29-MAY-2 29-MAY-2

Sample No: 8260 CCAL E Init. Calib. Times : 13:03 16:12

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.28592	.22966	.1	-20	20	
chloromethane	.29477	.29419	.1	0	20	
vinyl chloride	.29256	.24924	.1	-15	20	
bromomethane	100	76.195	.1	-24	20	F
chloroethane	.20646	.16504	.1	-20	20	F
trichlorofluoromethane	.43718	.31618	.1	-28	20	F
ethyl ether	.16797	.14391	.05	-14	20	
1,1,-dichloroethene	.21744	.20375	.1	-6	20	
carbon disulfide	.78968	.8198	.1	4	20	
methylene chloride	.23723	.24444	.1	3	20	
acetone	100	133	.1	33	20	F
trans-1,2-dichloroethene	.24388	.2275	.1	-7	20	
methyl tert butyl ether	.70479	.70225	.1	0	20	
Diisopropyl Ether	.73741	.85076	.05	15	20	
1,1-dichloroethane	.43907	.46614	.2	6	20	
Ethyl-Tert-Butyl-Ether	.73376	.78372	.05	7	20	
cis-1,2-dichloroethene	.26398	.24928	.1	-6	20	
2,2-dichloropropane	.35295	.34294	.05	-3	20	
bromochloromethane	.12177	.1156	.05	-5	20	
chloroform	.43542	.43797	.2	1	20	
carbontetrachloride	.33531	.30734	.1	-8	20	
tetrahydrofuran	.08049	.09159	.05	14	20	
1,1,1-trichloroethane	.37524	.35235	.1	-6	20	
2-butanone	.11667	.13634	.1	17	20	
1,1-dichloropropene	.32477	.31157	.05	-4	20	
benzene	.94894	.93107	.5	-2	20	
Tertiary-Amyl Methyl Ether	.67214	.62979	.05	-6	20	
1,2-dichloroethane	.33303	.36345	.1	9	20	
trichloroethene	.25024	.2387	.2	-5	20	
dibromomethane	.15496	.15214	.05	-2	20	
1,2-dichloropropane	.24107	.25032	.1	4	20	
bromodichloromethane	.3311	.33519	.2	1	20	
1,4-dioxane	.00305	.00284	.05	-7	20	F
cis-1,3-dichloropropene	.39408	.38456	.2	-2	20	
toluene	.88103	.74662	.4	-15	20	
4-methyl-2-pentanone	.10306	.1017	.1	-1	20	
tetrachloroethene	.35608	.27946	.2	-22	20	F
trans-1,3-dichloropropene	.50349	.4703	.1	-7	20	

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618042

Instrument ID: Voa100.i Calibration Date: 27-JUN-2016 Time: 11:51

Lab File ID: 0627N02 Init. Calib. Date(s): 29-MAY-2 29-MAY-2

Sample No: 8260 CCAL E Init. Calib. Times : 13:03 16:12

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
1,1,2-trichloroethane	.25434	.24591	.1	-3	20	
chlorodibromomethane	.35324	.31188	.1	-12	20	
1,3-dichloropropane	.52883	.50008	.05	-5	20	
1,2-dibromoethane	.30451	.26616	.1	-13	20	
2-hexanone	.26865	.25322	.1	-6	20	
chlorobenzene	.95704	.82117	.5	-14	20	
ethyl benzene	1.6435	1.4173	.1	-14	20	
1,1,1,2-tetrachloroethane	.3412	.29599	.05	-13	20	
p/m xylene	.63126	.53657	.1	-15	20	
o xylene	.60831	.50972	.3	-16	20	
styrene	1.0619	.91489	.3	-14	20	
bromoform	.45796	.38888	.1	-15	20	
isopropylbenzene	3.1559	2.4866	.1	-21	20	F
bromobenzene	.76818	.61245	.05	-20	20	F
n-propylbenzene	3.7579	3.1646	.05	-16	20	
1,1,2,2,-tetrachloroethane	.84835	.78832	.3	-7	20	
2-chlorotoluene	2.2415	1.9649	.05	-12	20	
1,3,5-trimethylbenzene	2.6252	2.1935	.05	-16	20	
1,2,3-trichloropropane	.69424	.64014	.05	-8	20	
4-chlorotoluene	2.2466	1.9464	.05	-13	20	
tert-butylbenzene	2.2001	1.7112	.05	-22	20	F
1,2,4-trimethylbenzene	2.6407	2.1849	.05	-17	20	
sec-butylbenzene	3.3983	2.7606	.05	-19	20	
p-isopropyltoluene	2.8371	2.2064	.05	-22	20	F
1,3-dichlorobenzene	1.4876	1.1993	.6	-19	20	
1,4-dichlorobenzene	1.4893	1.2248	.5	-18	20	
n-butylbenzene	2.7269	2.2739	.05	-17	20	
1,2-dichlorobenzene	1.3837	1.1109	.4	-20	20	
1,2-dibromo-3-chloropropane	.13721	.10922	.05	-20	20	F
hexachlorobutadiene	.50214	.34854	.05	-31	20	F
1,2,4-trichlorobenzene	1.0013	.74236	.2	-26	20	F
naphthalene	2.6432	1.9422	.05	-27	20	F
1,2,3-trichlorobenzene	.94878	.70402	.05	-26	20	F
=====	=====	=====	=====	=====	=====	
dibromofluoromethane	.25158	.25006	.05	-1	30	
1,2-dichloroethane-d4	.28974	.30923	.05	7	30	
toluene-d8	1.3574	1.2482	.05	-8	30	
4-bromofluorobenzene	.98297	.9912	.05	1	30	

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618042

Instrument ID: Voa111.i Calibration Date: 26-JUN-2016 Time: 06:48

Lab File ID: 0626A01 Init. Calib. Date(s): 04-APR-2 04-APR-2

Sample No: 8260 CCAL F Init. Calib. Times : 14:29 17:28

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.27564	.25545	.1	-7	20	
chloromethane	.37166	.31621	.1	-15	20	
vinyl chloride	.33082	.31043	.1	-6	20	
bromomethane	.2064	.21396	.1	4	20	
chloroethane	.20948	.19871	.1	-5	20	
trichlorofluoromethane	.35459	.36775	.1	4	20	
ethyl ether	.16758	.13709	.05	-18	20	
1,1,-dichloroethene	.22717	.23209	.1	2	20	
carbon disulfide	100	78.152	.1	-22	20	F
methylene chloride	.29752	.27074	.1	-9	20	
acetone	.06036	.05066	.1	-16	20	F
trans-1,2-dichloroethene	.26771	.2558	.1	-4	20	
methyl tert butyl ether	.74653	.59441	.1	-20	20	F
Diisopropyl Ether	1.1046	.76372	.05	-31	20	F
1,1-dichloroethane	.53991	.47256	.2	-12	20	
Ethyl-Tert-Butyl-Ether	.94251	.7024	.05	-25	20	F
cis-1,2-dichloroethene	.29461	.28097	.1	-5	20	
2,2-dichloropropane	.38923	.36708	.05	-6	20	
bromochloromethane	.12256	.12352	.05	1	20	
chloroform	.48228	.43911	.2	-9	20	
carbontetrachloride	.32407	.33054	.1	2	20	
tetrahydrofuran	.08086	.05896	.05	-27	20	F
1,1,1-trichloroethane	.38311	.36826	.1	-4	20	
2-butanone	.09486	.07621	.1	-20	20	F
1,1-dichloropropene	.34678	.33358	.05	-4	20	
benzene	1.1239	1.0394	.5	-8	20	
Tertiary-Amyl Methyl Ether	.7749	.60825	.05	-22	20	F
1,2-dichloroethane	.3428	.27417	.1	-20	20	F
trichloroethene	.26775	.25775	.2	-4	20	
dibromomethane	.14605	.13271	.05	-9	20	
1,2-dichloropropane	.30322	.26278	.1	-13	20	
bromodichloromethane	.36581	.31615	.2	-14	20	
1,4-dioxane	.5000	.3629	.05	-27	20	F
cis-1,3-dichloropropene	.4483	.39967	.2	-11	20	
toluene	.84165	.807	.4	-4	20	
4-methyl-2-pentanone	.08105	.05949	.1	-27	20	F
tetrachloroethene	.3065	.34573	.2	13	20	
trans-1,3-dichloropropene	.46531	.41331	.1	-11	20	

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618042

Instrument ID: Voa111.i Calibration Date: 26-JUN-2016 Time: 06:48

Lab File ID: 0626A01 Init. Calib. Date(s): 04-APR-2 04-APR-2

Sample No: 8260 CCAL F Init. Calib. Times : 14:29 17:28

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
1,1,2-trichloroethane	.22839	.20666	.1	-10	20
chlorodibromomethane	.29961	.28541	.1	-5	20
1,3-dichloropropane	.48365	.43417	.05	-10	20
1,2-dibromoethane	.23798	.22866	.1	-4	20
2-hexanone	.17636	.12384	.1	-30	20
chlorobenzene	.88451	.88231	.5	0	20
ethyl benzene	1.5426	1.4844	.1	-4	20
1,1,1,2-tetrachloroethane	.29638	.30292	.05	2	20
p/m xylene	.56849	.57019	.1	0	20
o xylene	.55016	.54716	.3	-1	20
styrene	.87815	.88832	.3	1	20
bromoform	.34307	.35304	.1	3	20
isopropylbenzene	2.9042	2.8896	.1	-1	20
bromobenzene	.69941	.69854	.05	0	20
n-propylbenzene	3.5199	3.5293	.05	0	20
1,1,2,2,-tetrachloroethane	.65127	.58382	.3	-10	20
2-chlorotoluene	2.4501	2.2843	.05	-7	20
1,3,5-trimethylbenzene	2.4155	2.3480	.05	-3	20
1,2,3-trichloropropane	.49832	.4214	.05	-15	20
4-chlorotoluene	2.1948	2.0235	.05	-8	20
tert-butylbenzene	1.9888	1.9810	.05	0	20
1,2,4-trimethylbenzene	2.4487	2.3553	.05	-4	20
sec-butylbenzene	3.0736	3.1073	.05	1	20
p-isopropyltoluene	2.5114	2.5474	.05	1	20
1,3-dichlorobenzene	1.3331	1.3476	.6	1	20
1,4-dichlorobenzene	1.3451	1.3468	.5	0	20
n-butylbenzene	2.4986	2.5032	.05	0	20
1,2-dichlorobenzene	1.2272	1.2112	.4	-1	20
1,2-dibromo-3-chloropropane	.07792	.073	.05	-6	20
hexachlorobutadiene	.46104	.54159	.05	17	20
1,2,4-trichlorobenzene	.83781	.91529	.2	9	20
naphthalene	1.7437	1.6299	.05	-7	20
1,2,3-trichlorobenzene	.77555	.82236	.05	6	20
=====	=====	=====	=====	=====	=====
dibromofluoromethane	.24728	.25203	.05	2	30
1,2-dichloroethane-d4	.2503	.2216	.05	-11	30
toluene-d8	1.3089	1.3205	.05	1	30
4-bromofluorobenzene	1.0469	.95111	.05	-9	30

F

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618042

Instrument ID: Voa110.i Calibration Date: 28-JUN-2016 Time: 07:33

Lab File ID: 0628A02 Init. Calib. Date(s): 26-MAY-2 26-MAY-2

Sample No: 8260 CCAL F Init. Calib. Times : 13:15 16:19

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.31386	.34995	.1	11	20	
chloromethane	.26024	.23303	.1	-10	20	
vinyl chloride	.20263	.19996	.1	-1	20	
bromomethane	.17972	.16128	.1	-10	20	
chloroethane	.13994	.13103	.1	-6	20	
trichlorofluoromethane	.35823	.40835	.1	14	20	
ethyl ether	.15569	.14918	.05	-4	20	
1,1,-dichloroethene	.19741	.21908	.1	11	20	
carbon disulfide	100	64.450	.1	-36	20	F
methylene chloride	.27643	.27384	.1	-1	20	
acetone	.06249	.0555	.1	-11	20	F
trans-1,2-dichloroethene	.23337	.24463	.1	5	20	
methyl tert butyl ether	.75645	.67688	.1	-11	20	
Diisopropyl Ether	.60126	.52594	.05	-13	20	
1,1-dichloroethane	.43969	.43383	.2	-1	20	
Ethyl-Tert-Butyl-Ether	.6726	.59765	.05	-11	20	
cis-1,2-dichloroethene	.25855	.26579	.1	3	20	
2,2-dichloropropane	.37378	.38805	.05	4	20	
bromochloromethane	.11564	.12676	.05	10	20	
chloroform	.50794	.51931	.2	2	20	
carbontetrachloride	.3377	.38328	.1	13	20	
tetrahydrofuran	.06027	.05044	.05	-16	20	
1,1,1-trichloroethane	.41598	.44828	.1	8	20	
2-butanone	.08223	.06621	.1	-19	20	F
1,1-dichloropropene	.30493	.32298	.05	6	20	
benzene	.9436	.9313	.5	-1	20	
Tertiary-Amyl Methyl Ether	.64977	.56292	.05	-13	20	
1,2-dichloroethane	.40955	.38847	.1	-5	20	
trichloroethene	.24943	.2619	.2	5	20	
dibromomethane	.15354	.15189	.05	-1	20	
1,2-dichloropropane	.21894	.20119	.1	-8	20	
bromodichloromethane	.36792	.3578	.2	-3	20	
1,4-dioxane	5000	3462	.05	-31	20	F
cis-1,3-dichloropropene	.37903	.35836	.2	-5	20	
toluene	.9637	.85641	.4	-11	20	
4-methyl-2-pentanone	100	69.832	.1	-30	20	F
tetrachloroethene	.32039	.33842	.2	6	20	
trans-1,3-dichloropropene	.5184	.46086	.1	-11	20	

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618042

Instrument ID: Voa110.i Calibration Date: 28-JUN-2016 Time: 07:33

Lab File ID: 0628A02 Init. Calib. Date(s): 26-MAY-2 26-MAY-2

Sample No: 8260 CCAL F Init. Calib. Times : 13:15 16:19

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
1,1,2-trichloroethane	.27301	.24411	.1	-11	20	
chlorodibromomethane	.36733	.36046	.1	-2	20	
1,3-dichloropropane	.57246	.51687	.05	-10	20	
1,2-dibromoethane	.30263	.27694	.1	-8	20	
2-hexanone	100	62.822	.1	-37	20	F
chlorobenzene	.96795	.97068	.5	0	20	
ethyl benzene	1.6015	1.6188	.1	1	20	
1,1,1,2-tetrachloroethane	.35869	.35992	.05	0	20	
p/m xylene	.57348	.61088	.1	7	20	
o xylene	.54931	.58183	.3	6	20	
styrene	.9678	1.0119	.3	5	20	
bromoform	.4524	.39279	.1	-13	20	
isopropylbenzene	2.8079	2.7812	.1	-1	20	
bromobenzene	.74486	.67768	.05	-9	20	
n-propylbenzene	3.5231	3.4084	.05	-3	20	
1,1,2,2,-tetrachloroethane	.89355	.70945	.3	-21	20	F
2-chlorotoluene	2.2754	2.2076	.05	-3	20	
1,3,5-trimethylbenzene	2.5191	2.5568	.05	1	20	
1,2,3-trichloropropane	.70984	.58571	.05	-17	20	
4-chlorotoluene	2.2953	2.2548	.05	-2	20	
tert-butylbenzene	1.9884	2.0234	.05	2	20	
1,2,4-trimethylbenzene	2.4907	2.5402	.05	2	20	
sec-butylbenzene	2.9877	3.0789	.05	3	20	
p-isopropyltoluene	100	97.273	.05	-3	20	
1,3-dichlorobenzene	1.4182	1.3841	.6	-2	20	
1,4-dichlorobenzene	1.4681	1.4302	.5	-3	20	
n-butylbenzene	2.4316	2.5582	.05	5	20	
1,2-dichlorobenzene	1.3348	1.2610	.4	-6	20	
1,2-dibromo-3-chloropropane	.11527	.088	.05	-24	20	F
hexachlorobutadiene	.44707	.45063	.05	1	20	
1,2,4-trichlorobenzene	.87773	.80612	.2	-8	20	
naphthalene	2.2474	1.6867	.05	-25	20	F
1,2,3-trichlorobenzene	.86802	.80225	.05	-8	20	
=====	=====	=====	=====	=====	=====	
dibromofluoromethane	.27515	.27713	.05	1	30	
1,2-dichloroethane-d4	.349	.32087	.05	-8	30	
toluene-d8	1.3991	1.3359	.05	-5	30	
4-bromofluorobenzene	.98001	.89237	.05	-9	30	

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618042

Instrument ID: Voa111.i Calibration Date: 28-JUN-2016 Time: 07:32

Lab File ID: 0628A02 Init. Calib. Date(s): 27-JUN-2 27-JUN-2

Sample No: 8260 ccal Init. Calib. Times : 15:14 18:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane	.28376	.27545	.1	-3	20
chloromethane	.32437	.31912	.1	-2	20
vinyl chloride	100	89.653	.1	-10	20
bromomethane	.17261	.14176	.1	-18	20
chloroethane	.16785	.13786	.1	-18	20
trichlorofluoromethane	.50018	.50016	.1	0	20
ethyl ether	.18479	.16669	.05	-10	20
1,1,-dichloroethene	.24243	.2335	.1	-4	20
carbon disulfide	.9626	.94418	.1	-2	20
methylene chloride	.31067	.29807	.1	-4	20
acetone	.06399	.05624	.1	-12	20
trans-1,2-dichloroethene	.28462	.2722	.1	-4	20
methyl tert butyl ether	.90864	.78368	.1	-14	20
Diisopropyl Ether	1.0467	.97124	.05	-7	20
1,1-dichloroethane	.61536	.5811	.2	-6	20
Ethyl-Tert-Butyl-Ether	1.0343	.96714	.05	-7	20
cis-1,2-dichloroethene	.28648	.29538	.1	3	20
2,2-dichloropropane	.48017	.48237	.05	0	20
bromochloromethane	.10362	.11021	.05	6	20
chloroform	.54386	.55577	.2	2	20
carbontetrachloride	.39299	.40782	.1	4	20
tetrahydrofuran	100	99	.05	-1	20
1,1,1-trichloroethane	.46231	.48188	.1	4	20
2-butanone	.08225	.08225	.1	0	20
1,1-dichloropropene	.37003	.4135	.05	12	20
benzene	1.0692	1.1589	.5	8	20
Tertiary-Amyl Methyl Ether	.7783	.78799	.05	1	20
1,2-dichloroethane	.44783	.41334	.1	-8	20
trichloroethene	.27355	.2906	.2	6	20
dibromomethane	.15973	.15376	.05	-4	20
1,2-dichloropropane	.30527	.30649	.1	0	20
bromodichloromethane	.44948	.41628	.2	-7	20
1,4-dioxane	5000	4143	.05	-17	20
cis-1,3-dichloropropene	.47952	.40577	.2	-15	20
toluene	.86774	.7312	.4	-16	20
4-methyl-2-pentanone	.08066	.06222	.1	-23	20
tetrachloroethene	.32563	.32147	.2	-1	20
trans-1,3-dichloropropene	.59424	.49991	.1	-16	20

F

F

F

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1618042

Instrument ID: Voa111.i Calibration Date: 28-JUN-2016 Time: 07:32

Lab File ID: 0628A02 Init. Calib. Date(s): 27-JUN-2 27-JUN-2

Sample No: 8260 ccal Init. Calib. Times : 15:14 18:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
1,1,2-trichloroethane	.23728	.21401	.1	-10	20
chlorodibromomethane	.30085	.27834	.1	-7	20
1,3-dichloropropane	.53149	.50672	.05	-5	20
1,2-dibromoethane	.25118	.24325	.1	-3	20
2-hexanone	.1711	.16456	.1	-4	20
chlorobenzene	.88442	.9313	.5	5	20
ethyl benzene	1.7183	1.8412	.1	7	20
1,1,1,2-tetrachloroethane	.31709	.32403	.05	2	20
p/m xylene	.58486	.63462	.1	9	20
o xylene	.57281	.59832	.3	4	20
styrene	.87028	1.0162	.3	17	20
bromoform	.42158	.40459	.1	-4	20
isopropylbenzene	3.0724	3.3052	.1	8	20
bromobenzene	.70475	.71995	.05	2	20
n-propylbenzene	3.9232	4.2204	.05	8	20
1,1,2,2,-tetrachloroethane	.69727	.6726	.3	-4	20
2-chlorotoluene	2.7675	2.8995	.05	5	20
1,3,5-trimethylbenzene	2.6801	2.8142	.05	5	20
1,2,3-trichloropropane	.58851	.55991	.05	-5	20
4-chlorotoluene	2.4927	2.5905	.05	4	20
tert-butylbenzene	2.0360	2.1831	.05	7	20
1,2,4-trimethylbenzene	2.6773	2.8661	.05	7	20
sec-butylbenzene	3.1218	3.3941	.05	9	20
p-isopropyltoluene	2.5673	2.7669	.05	8	20
1,3-dichlorobenzene	1.3160	1.3862	.6	5	20
1,4-dichlorobenzene	1.3235	1.3803	.5	4	20
n-butylbenzene	2.7382	3.0389	.05	11	20
1,2-dichlorobenzene	1.2333	1.2701	.4	3	20
1,2-dibromo-3-chloropropane	100	91.946	.05	-8	20
hexachlorobutadiene	.62392	.60946	.05	-2	20
1,2,4-trichlorobenzene	.99297	1.0025	.2	1	20
naphthalene	1.7613	1.7284	.05	-2	20
1,2,3-trichlorobenzene	.93525	.93721	.05	0	20
=====	=====	=====	=====	=====	=====
dibromofluoromethane	.25189	.25264	.05	0	30
1,2-dichloroethane-d4	.34703	.30395	.05	-12	30
toluene-d8	1.3862	1.2111	.05	-13	30
4-bromofluorobenzene	1.1517	1.1380	.05	-1	30

FORM VII MCP-8260HLW-10



ANALYTICAL REPORT

Lab Number:	L1620719
Client:	Gomez and Sullivan Engineers PO Box 2179 Henniker, NH 03242
ATTN:	Aaron Rubin
Phone:	(603) 428-4960
Project Name:	ARMSTRONG DAM REMOVAL
Project Number:	1760
Report Date:	07/28/16

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: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1620719-01	04	SEDIMENT	BRAINTREE, MA	06/13/16 10:30	06/13/16
L1620719-02	05	SEDIMENT	BRAINTREE, MA	06/13/16 11:40	06/13/16
L1620719-03	08	SEDIMENT	BRAINTREE, MA	06/13/16 14:15	06/13/16
L1620719-04	07	SEDIMENT	BRAINTREE, MA	06/13/16 15:00	06/13/16
L1620719-05	06	SEDIMENT	BRAINTREE, MA	06/13/16 16:00	06/13/16
L1620719-06	03	SEDIMENT	BRAINTREE, MA	06/14/16 08:00	06/14/16
L1620719-07	02	SEDIMENT	BRAINTREE, MA	06/14/16 08:45	06/14/16
L1620719-08	09	SEDIMENT	BRAINTREE, MA	06/14/16 10:30	06/14/16
L1620719-09	01	SEDIMENT	BRAINTREE, MA	06/14/16 15:00	06/14/16

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1620719

Project Number: 1760

Report Date: 07/28/16

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

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

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

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

Case Narrative (continued)

MCP Related Narratives

Pesticides

In reference to question G:

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

In reference to question H:

The surrogate recovery for sample L1620719-03 is outside the individual acceptance criteria for DCB (152%-column B). All other surrogates are within acceptance criteria; therefore no further action was taken.

The surrogate recoveries for L1620719-04, -05, -06, -07, and -08. are outside the acceptance criteria for DCB; however, the samples were not re-extracted due to coelution with obvious interferences.

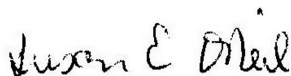
The dual column RPDs for L1620719-04 and -07 are above the acceptance criteria for 4,4-DDE; however, obvious column interferences are present. Due to these interferences, in each case the lower of the two results is reported and qualified with a "P" and "I".

The WG915014-2/-3 LCS/LCSD RPD, associated with L1620719-01 through -09, is above the acceptance criteria for Endrin (47%).

WG917917-1, -2, -3: The continuing calibration standards are outside the acceptance criteria for several compounds; however, within overall method allowances. Copies of the continuing calibration standard reports are included as an addendum to this report.

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

Authorized Signature:



Susan O'Neil

Title: Technical Director/Representative

Date: 07/28/16

ORGANICS

PESTICIDES

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-01
Client ID: 04
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8081B
Analytical Date: 07/27/16 23:12
Analyst: DP
Percent Solids: 31%

Date Collected: 06/13/16 10:30
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 07/19/16 17:36
Cleanup Method: EPA 3630
Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Mansfield Lab							
4,4'-DDD	2.82		ug/kg	0.623	--	1	B
4,4'-DDE	2.69		ug/kg	0.623	--	1	A
4,4'-DDT	ND		ug/kg	0.623	--	1	A
Aldrin	ND		ug/kg	1.00	--	1	A
Alpha-BHC	ND		ug/kg	0.623	--	1	A
Beta-BHC	ND		ug/kg	0.623	--	1	A
Delta-BHC	ND		ug/kg	0.623	--	1	A
Dieldrin	ND		ug/kg	0.623	--	1	A
Endosulfan I	ND		ug/kg	0.623	--	1	A
Endosulfan II	ND		ug/kg	0.623	--	1	A
Endosulfan sulfate	ND		ug/kg	0.623	--	1	A
Endrin	ND		ug/kg	0.623	--	1	A
Endrin ketone	ND		ug/kg	0.623	--	1	A
gamma-BHC	ND		ug/kg	0.623	--	1	A
Heptachlor	ND		ug/kg	0.623	--	1	A
Heptachlor epoxide	ND		ug/kg	1.24	--	1	B
Hexachlorobenzene	ND		ug/kg	2.00	--	1	A
Methoxychlor	ND		ug/kg	6.23	--	1	A
Chlordane	ND		ug/kg	31.3	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	60		30-150	A
DCB - Surrogate	48		30-150	A
TMX - Surrogate	56		30-150	B
DCB - Surrogate	47		30-150	B

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-02
Client ID: 05
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8081B
Analytical Date: 07/27/16 23:45
Analyst: DP
Percent Solids: 32%

Date Collected: 06/13/16 11:40
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 07/19/16 17:36
Cleanup Method: EPA 3630
Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Mansfield Lab							
4,4'-DDD	11.7		ug/kg	0.574	--	1	B
4,4'-DDE	9.15		ug/kg	0.574	--	1	B
4,4'-DDT	0.647		ug/kg	0.574	--	1	B
Aldrin	ND		ug/kg	1.00	--	1	A
Alpha-BHC	ND		ug/kg	0.574	--	1	A
Beta-BHC	ND		ug/kg	0.574	--	1	A
Delta-BHC	ND		ug/kg	0.574	--	1	A
Dieldrin	ND		ug/kg	0.574	--	1	A
Endosulfan I	ND		ug/kg	0.574	--	1	A
Endosulfan II	ND		ug/kg	0.574	--	1	A
Endosulfan sulfate	ND		ug/kg	0.574	--	1	A
Endrin	ND		ug/kg	0.574	--	1	A
Endrin ketone	ND		ug/kg	0.574	--	1	A
gamma-BHC	ND		ug/kg	0.574	--	1	A
Heptachlor	ND		ug/kg	0.574	--	1	A
Heptachlor epoxide	ND		ug/kg	1.15	--	1	B
Hexachlorobenzene	ND		ug/kg	2.00	--	1	A
Methoxychlor	ND		ug/kg	5.74	--	1	A
Chlordane	ND		ug/kg	28.8	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	50		30-150	A
DCB - Surrogate	43		30-150	A
TMX - Surrogate	47		30-150	B
DCB - Surrogate	44		30-150	B

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-03 D
Client ID: 08
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8081B
Analytical Date: 07/28/16 00:50
Analyst: DP
Percent Solids: 21%

Date Collected: 06/13/16 14:15
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 07/19/16 17:36
Cleanup Method: EPA 3630
Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Mansfield Lab							
4,4'-DDD	551		ug/kg	9.19	--	10	B
4,4'-DDE	126		ug/kg	9.19	--	10	A
4,4'-DDT	53.0		ug/kg	9.19	--	10	B
Aldrin	ND		ug/kg	9.19	--	10	A
Alpha-BHC	ND		ug/kg	9.19	--	10	A
Beta-BHC	ND		ug/kg	9.19	--	10	A
Delta-BHC	ND		ug/kg	9.19	--	10	A
Dieldrin	ND		ug/kg	9.19	--	10	A
Endosulfan I	ND		ug/kg	9.19	--	10	A
Endosulfan II	ND		ug/kg	9.19	--	10	A
Endosulfan sulfate	ND		ug/kg	9.19	--	10	A
Endrin	ND		ug/kg	9.19	--	10	A
Endrin ketone	ND		ug/kg	9.19	--	10	A
gamma-BHC	ND		ug/kg	9.19	--	10	A
Heptachlor	ND		ug/kg	9.19	--	10	A
Heptachlor epoxide	ND		ug/kg	18.4	--	10	B
Hexachlorobenzene	ND		ug/kg	18.4	--	10	A
Methoxychlor	ND		ug/kg	91.9	--	10	A
Chlordane	ND		ug/kg	461	--	10	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	88		30-150	A
DCB - Surrogate	143		30-150	A
TMX - Surrogate	81		30-150	B
DCB - Surrogate	152	Q	30-150	B

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-04 D
Client ID: 07
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8081B
Analytical Date: 07/28/16 01:22
Analyst: DP
Percent Solids: 56%

Date Collected: 06/13/16 15:00
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 07/19/16 17:36
Cleanup Method: EPA 3630
Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Mansfield Lab							
4,4'-DDD	12.0		ug/kg	3.43	--	10	B
4,4'-DDE	3.55	PI	ug/kg	3.43	--	10	A
4,4'-DDT	5.46		ug/kg	3.43	--	10	B
Aldrin	ND		ug/kg	3.43	--	10	A
Alpha-BHC	ND		ug/kg	3.43	--	10	A
Beta-BHC	ND		ug/kg	3.43	--	10	A
Delta-BHC	ND		ug/kg	3.43	--	10	A
Dieldrin	ND		ug/kg	3.43	--	10	A
Endosulfan I	ND		ug/kg	3.43	--	10	A
Endosulfan II	ND		ug/kg	3.43	--	10	A
Endosulfan sulfate	ND		ug/kg	3.43	--	10	A
Endrin	ND		ug/kg	3.43	--	10	A
Endrin ketone	ND		ug/kg	3.43	--	10	A
gamma-BHC	ND		ug/kg	3.43	--	10	A
Heptachlor	ND		ug/kg	3.43	--	10	A
Heptachlor epoxide	ND		ug/kg	6.86	--	10	B
Hexachlorobenzene	ND		ug/kg	6.86	--	10	A
Methoxychlor	ND		ug/kg	34.3	--	10	A
Chlordane	ND		ug/kg	172	--	10	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	92		30-150	A
DCB - Surrogate	110		30-150	A
TMX - Surrogate	85		30-150	B
DCB - Surrogate	306	Q	30-150	B

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1620719**Project Number:** 1760**Report Date:** 07/28/16**SAMPLE RESULTS**

Lab ID: L1620719-05 D
Client ID: 06
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8081B
Analytical Date: 07/28/16 01:54
Analyst: DP
Percent Solids: 25%

Date Collected: 06/13/16 16:00
Date Received: 06/13/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 07/19/16 17:36
Cleanup Method: EPA 3630
Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Mansfield Lab							
4,4'-DDD	33.9		ug/kg	8.08	--	10	B
4,4'-DDE	27.3		ug/kg	8.08	--	10	B
4,4'-DDT	48.9		ug/kg	8.08	--	10	B
Aldrin	ND		ug/kg	8.08	--	10	A
Alpha-BHC	ND		ug/kg	8.08	--	10	A
Beta-BHC	ND		ug/kg	8.08	--	10	A
Delta-BHC	ND		ug/kg	8.08	--	10	A
Dieldrin	ND		ug/kg	8.08	--	10	A
Endosulfan I	ND		ug/kg	8.08	--	10	A
Endosulfan II	ND		ug/kg	8.08	--	10	A
Endosulfan sulfate	ND		ug/kg	8.08	--	10	A
Endrin	ND		ug/kg	8.08	--	10	A
Endrin ketone	ND		ug/kg	8.08	--	10	A
gamma-BHC	ND		ug/kg	8.08	--	10	A
Heptachlor	ND		ug/kg	8.08	--	10	A
Heptachlor epoxide	ND		ug/kg	16.2	--	10	B
Hexachlorobenzene	ND		ug/kg	16.2	--	10	A
Methoxychlor	ND		ug/kg	80.8	--	10	B
Chlordane	ND		ug/kg	406	--	10	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	71		30-150	A
DCB - Surrogate	73		30-150	A
TMX - Surrogate	68		30-150	B
DCB - Surrogate	353	Q	30-150	B

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-06 D
Client ID: 03
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8081B
Analytical Date: 07/28/16 02:27
Analyst: DP
Percent Solids: 62%

Date Collected: 06/14/16 08:00
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 07/19/16 17:36
Cleanup Method: EPA 3630
Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Mansfield Lab							
4,4'-DDD	11.8		ug/kg	2.94	--	10	B
4,4'-DDE	5.67		ug/kg	2.94	--	10	A
4,4'-DDT	ND		ug/kg	2.94	--	10	A
Aldrin	ND		ug/kg	2.94	--	10	A
Alpha-BHC	ND		ug/kg	2.94	--	10	A
Beta-BHC	ND		ug/kg	2.94	--	10	A
Delta-BHC	ND		ug/kg	2.94	--	10	A
Dieldrin	ND		ug/kg	2.94	--	10	A
Endosulfan I	ND		ug/kg	2.94	--	10	A
Endosulfan II	ND		ug/kg	2.94	--	10	A
Endosulfan sulfate	ND		ug/kg	2.94	--	10	A
Endrin	ND		ug/kg	2.94	--	10	A
Endrin ketone	ND		ug/kg	2.94	--	10	A
gamma-BHC	ND		ug/kg	2.94	--	10	A
Heptachlor	ND		ug/kg	2.94	--	10	A
Heptachlor epoxide	ND		ug/kg	5.89	--	10	B
Hexachlorobenzene	ND		ug/kg	5.89	--	10	A
Methoxychlor	ND		ug/kg	29.4	--	10	A
Chlordane	ND		ug/kg	148	--	10	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	75		30-150	A
DCB - Surrogate	85		30-150	A
TMX - Surrogate	72		30-150	B
DCB - Surrogate	235	Q	30-150	B

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1620719**Project Number:** 1760**Report Date:** 07/28/16**SAMPLE RESULTS**

Lab ID: L1620719-07 D
Client ID: 02
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8081B
Analytical Date: 07/28/16 02:59
Analyst: DP
Percent Solids: 44%

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 07/19/16 17:36
Cleanup Method: EPA 3630
Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Mansfield Lab							
4,4'-DDD	23.2		ug/kg	4.42	--	10	B
4,4'-DDE	11.7	PI	ug/kg	4.42	--	10	A
4,4'-DDT	20.7		ug/kg	4.42	--	10	B
Aldrin	ND		ug/kg	4.42	--	10	A
Alpha-BHC	ND		ug/kg	4.42	--	10	A
Beta-BHC	ND		ug/kg	4.42	--	10	A
Delta-BHC	ND		ug/kg	4.42	--	10	A
Dieldrin	16.6		ug/kg	4.42	--	10	B
Endosulfan I	ND		ug/kg	4.42	--	10	A
Endosulfan II	ND		ug/kg	4.42	--	10	A
Endosulfan sulfate	ND		ug/kg	4.42	--	10	A
Endrin	ND		ug/kg	4.42	--	10	A
Endrin ketone	ND		ug/kg	4.42	--	10	A
gamma-BHC	ND		ug/kg	4.42	--	10	A
Heptachlor	ND		ug/kg	4.42	--	10	A
Heptachlor epoxide	ND		ug/kg	8.83	--	10	B
Hexachlorobenzene	ND		ug/kg	8.83	--	10	A
Methoxychlor	237		ug/kg	44.2	--	10	A
Chlordane	ND		ug/kg	222	--	10	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	71		30-150	A
DCB - Surrogate	97		30-150	A
TMX - Surrogate	74		30-150	B
DCB - Surrogate	179	Q	30-150	B

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1620719**Project Number:** 1760**Report Date:** 07/28/16**SAMPLE RESULTS**

Lab ID: L1620719-08 D
Client ID: 09
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8081B
Analytical Date: 07/28/16 03:32
Analyst: DP
Percent Solids: 50%

Date Collected: 06/14/16 10:30
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 07/19/16 17:36
Cleanup Method: EPA 3630
Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Mansfield Lab							
4,4'-DDD	7.16		ug/kg	3.91	--	10	B
4,4'-DDE	10.8		ug/kg	3.91	--	10	A
4,4'-DDT	ND		ug/kg	3.91	--	10	A
Aldrin	ND		ug/kg	3.91	--	10	A
Alpha-BHC	ND		ug/kg	3.91	--	10	A
Beta-BHC	ND		ug/kg	3.91	--	10	A
Delta-BHC	ND		ug/kg	3.91	--	10	A
Dieldrin	ND		ug/kg	3.91	--	10	A
Endosulfan I	ND		ug/kg	3.91	--	10	A
Endosulfan II	ND		ug/kg	3.91	--	10	A
Endosulfan sulfate	ND		ug/kg	3.91	--	10	A
Endrin	ND		ug/kg	3.91	--	10	A
Endrin ketone	ND		ug/kg	3.91	--	10	A
gamma-BHC	ND		ug/kg	3.91	--	10	A
Heptachlor	ND		ug/kg	3.91	--	10	A
Heptachlor epoxide	ND		ug/kg	7.83	--	10	B
Hexachlorobenzene	ND		ug/kg	7.83	--	10	A
Methoxychlor	ND		ug/kg	39.1	--	10	B
Chlordane	ND		ug/kg	196	--	10	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	61		30-150	A
DCB - Surrogate	64		30-150	A
TMX - Surrogate	65		30-150	B
DCB - Surrogate	6290	Q	30-150	B

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-09
Client ID: 01
Sample Location: BRAINTREE, MA
Matrix: Sediment
Analytical Method: 97,8081B
Analytical Date: 07/28/16 00:17
Analyst: DP
Percent Solids: 37%

Date Collected: 06/14/16 15:00
Date Received: 06/14/16
Field Prep: Not Specified
Extraction Method: EPA 3570
Extraction Date: 07/19/16 17:36
Cleanup Method: EPA 3630
Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Organochlorine Pesticides - Mansfield Lab							
4,4'-DDD	ND		ug/kg	0.529	--	1	A
4,4'-DDE	ND		ug/kg	0.529	--	1	A
4,4'-DDT	ND		ug/kg	0.529	--	1	A
Aldrin	ND		ug/kg	1.00	--	1	A
Alpha-BHC	ND		ug/kg	0.529	--	1	A
Beta-BHC	ND		ug/kg	0.529	--	1	A
Delta-BHC	ND		ug/kg	0.529	--	1	A
Dieldrin	ND		ug/kg	0.529	--	1	A
Endosulfan I	ND		ug/kg	0.529	--	1	A
Endosulfan II	ND		ug/kg	0.529	--	1	A
Endosulfan sulfate	ND		ug/kg	0.529	--	1	A
Endrin	ND		ug/kg	0.529	--	1	A
Endrin ketone	ND		ug/kg	0.529	--	1	A
gamma-BHC	ND		ug/kg	0.529	--	1	A
Heptachlor	ND		ug/kg	0.529	--	1	A
Heptachlor epoxide	ND		ug/kg	1.06	--	1	B
Hexachlorobenzene	ND		ug/kg	2.00	--	1	A
Methoxychlor	ND		ug/kg	5.29	--	1	A
Chlordane	ND		ug/kg	26.6	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	69		30-150	A
DCB - Surrogate	72		30-150	A
TMX - Surrogate	69		30-150	B
DCB - Surrogate	79		30-150	B

Project Name: ARMSTRONG DAM REMOVAL

Lab Number: L1620719

Project Number: 1760

Report Date: 07/28/16

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8081B
 Analytical Date: 07/27/16 17:48
 Analyst: DP

Extraction Method: EPA 3570
 Extraction Date: 07/19/16 17:36
 Cleanup Method: EPA 3630
 Cleanup Date: 07/20/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Organochlorine Pesticides - Mansfield Lab for sample(s): 01-09 Batch: WG915014-1						
4,4'-DDD	ND		ug/kg	0.500	--	A
4,4'-DDE	ND		ug/kg	0.500	--	A
4,4'-DDT	ND		ug/kg	0.500	--	A
Aldrin	ND		ug/kg	1.00	--	A
Alpha-BHC	ND		ug/kg	0.500	--	A
Beta-BHC	ND		ug/kg	0.500	--	A
Delta-BHC	ND		ug/kg	0.500	--	A
Dieldrin	ND		ug/kg	0.500	--	A
Endosulfan I	ND		ug/kg	0.500	--	A
Endosulfan II	ND		ug/kg	0.500	--	A
Endosulfan sulfate	ND		ug/kg	0.500	--	A
Endrin	ND		ug/kg	0.500	--	A
Endrin ketone	ND		ug/kg	0.500	--	A
gamma-BHC	ND		ug/kg	0.500	--	A
Heptachlor	ND		ug/kg	0.500	--	A
Hexachlorobenzene	ND		ug/kg	2.00	--	A
Methoxychlor	ND		ug/kg	5.00	--	A
Chlordane	ND		ug/kg	25.0	--	A
Heptachlor epoxide	ND		ug/kg	0.500	--	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
TMX - Surrogate	70		30-150	A
DCB - Surrogate	76		30-150	A
TMX - Surrogate	70		30-150	B
DCB - Surrogate	80		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1620719

Report Date: 07/28/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Organochlorine Pesticides - Mansfield Lab Associated sample(s): 01-09 Batch: WG915014-2 WG915014-3									
4,4'-DDD	77		94		40-140	20		30	A
4,4'-DDE	74		91		40-140	21		30	A
4,4'-DDT	73		90		40-140	21		30	A
Aldrin	64		82		40-140	25		30	A
Alpha-BHC	72		88		40-140	20		30	A
Beta-BHC	64		77		40-140	18		30	A
Delta-BHC	71		88		40-140	21		30	A
Dieldrin	78		95		40-140	20		30	A
Endosulfan I	69		84		40-140	20		30	A
Endosulfan II	66		85		40-140	25		30	A
Endosulfan sulfate	67		87		40-140	26		30	A
Endrin	50		81		40-140	47	Q	30	A
Endrin aldehyde	68		83		40-140	20		30	A
Endrin ketone	90		107		40-140	17		30	A
gamma-BHC	71		86		40-140	19		30	A
Heptachlor	62		78		40-140	23		30	A
Hexachlorobenzene	59		74		40-140	23		30	A
Methoxychlor	62		79		40-140	24		30	A

Lab Control Sample Analysis**Batch Quality Control****Project Name:** ARMSTRONG DAM REMOVAL**Lab Number:** L1620719**Project Number:** 1760**Report Date:** 07/28/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
------------------	--------------------------	-------------	---------------------------	-------------	-----------------------------	------------	-------------	-----------------------

MCP Organochlorine Pesticides - Mansfield Lab Associated sample(s): 01-09 Batch: WG915014-2 WG915014-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
TMX - Surrogate	59		75		30-150	A
DCB - Surrogate	68		84		30-150	A
TMX - Surrogate	61		85		30-150	B
DCB - Surrogate	67		93		30-150	B

Lab Control Sample Analysis**Batch Quality Control****Project Name:** ARMSTRONG DAM REMOVAL**Project Number:** 1760**Lab Number:** L1620719**Report Date:** 07/28/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Organochlorine Pesticides - Mansfield Lab Associated sample(s): 01-09 Batch: WG915014-2 WG915014-3									
Heptachlor epoxide	75		99		40-140	28		30	B

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
TMX - Surrogate	59		75		30-150	A
DCB - Surrogate	68		84		30-150	A
TMX - Surrogate	61		85		30-150	B
DCB - Surrogate	67		93		30-150	B

INORGANICS & MISCELLANEOUS

Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1620719**Project Number:** 1760**Report Date:** 07/28/16**SAMPLE RESULTS**

Lab ID: L1620719-01
Client ID: 04
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/13/16 10:30
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	30.9		%	0.100	--	1	-	07/14/16 09:20	121,2540G	AR



Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1620719

Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-02

Client ID: 05

Sample Location: BRAINTREE, MA

Matrix: Sediment

Date Collected: 06/13/16 11:40

Date Received: 06/13/16

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	32.2		%	0.100	--	1	-	07/14/16 09:20	121,2540G	AR



Project Name: ARMSTRONG DAM REMOVAL**Project Number:** 1760**Lab Number:** L1620719**Report Date:** 07/28/16**SAMPLE RESULTS****Lab ID:** L1620719-03**Client ID:** 08**Sample Location:** BRAINTREE, MA**Matrix:** Sediment**Date Collected:** 06/13/16 14:15**Date Received:** 06/13/16**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	21.3		%	0.100	--	1	-	07/14/16 09:20	121,2540G	AR



Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1620719

Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-04

Client ID: 07

Sample Location: BRAINTREE, MA

Matrix: Sediment

Date Collected: 06/13/16 15:00

Date Received: 06/13/16

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	56.4		%	0.100	--	1	-	07/14/16 09:20	121,2540G	AR



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-05
Client ID: 06
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/13/16 16:00
Date Received: 06/13/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	24.6		%	0.100	--	1	-	07/14/16 09:20	121,2540G	AR



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-06
Client ID: 03
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/14/16 08:00
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.4		%	0.100	--	1	-	07/14/16 09:20	121,2540G	AR



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-07
Client ID: 02
Sample Location: BRAINTREE, MA
Matrix: Sediment

Date Collected: 06/14/16 08:45
Date Received: 06/14/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	44.0		%	0.100	--	1	-	07/14/16 09:20	121,2540G	AR



Project Name: ARMSTRONG DAM REMOVAL**Lab Number:** L1620719**Project Number:** 1760**Report Date:** 07/28/16**SAMPLE RESULTS****Lab ID:** L1620719-08**Date Collected:** 06/14/16 10:30**Client ID:** 09**Date Received:** 06/14/16**Sample Location:** BRAINTREE, MA**Field Prep:** Not Specified**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	49.7		%	0.100	--	1	-	07/14/16 09:20	121,2540G	AR



Project Name: ARMSTRONG DAM REMOVAL

Project Number: 1760

Lab Number: L1620719

Report Date: 07/28/16

SAMPLE RESULTS

Lab ID: L1620719-09

Client ID: 01

Sample Location: BRAINTREE, MA

Matrix: Sediment

Date Collected: 06/14/16 15:00

Date Received: 06/14/16

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	36.7		%	0.100	--	1	-	07/14/16 09:20	121,2540G	AR



Lab Duplicate Analysis
Batch Quality Control**Project Name:** ARMSTRONG DAM REMOVAL**Project Number:** 1760**Lab Number:** L1620719**Report Date:** 07/28/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG913395-1 QC Sample: L1620719-01 Client ID: 04						
Solids, Total	30.9	31.9	%	3		10

Project Name: ARMSTRONG DAM REMOVAL**Project Number:** 1760**Lab Number:** L1620719**Report Date:** 07/28/16**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Cooler Information Custody Seal**Cooler**

A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1620719-01A	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-MCP-8081-10(14)
L1620719-02A	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-MCP-8081-10(14)
L1620719-03A	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-MCP-8081-10(14)
L1620719-04A	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-MCP-8081-10(14)
L1620719-05A	Glass 250ml/8oz unpreserved	A	N/A	4.7	Y	Absent	A2-MCP-8081-10(14)
L1620719-06A	Glass 250ml/8oz unpreserved	B	N/A	4.1	Y	Absent	A2-MCP-8081-10(14)
L1620719-07A	Glass 250ml/8oz unpreserved	B	N/A	4.1	Y	Absent	A2-MCP-8081-10(14)
L1620719-08A	Glass 250ml/8oz unpreserved	B	N/A	4.1	Y	Absent	A2-MCP-8081-10(14)
L1620719-09A	Glass 250ml/8oz unpreserved	C	N/A	5.1	Y	Absent	A2-MCP-8081-10(14)

*Values in parentheses indicate holding time in days

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: Data Usability Report



Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

Data Qualifiers

- reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: ARMSTRONG DAM REMOVAL
Project Number: 1760

Lab Number: L1620719
Report Date: 07/28/16

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.
- 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 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene

EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene

EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.

EPA 1010A: NPW: Ignitability

EPA 6010C: NPW: Strontium; SCM: Strontium

EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation

EPA 9038: NPW: Sulfate

EPA 9050A: NPW: Specific Conductance

EPA 9056: NPW: Chloride, Nitrate, Sulfate

EPA 9065: NPW: Phenols

EPA 9251: NPW: Chloride

SM3500: NPW: Ferrous Iron

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

SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam

EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane

SM 2540D: TSS

SM2540G: SCM: Percent Solids

EPA 1631E: SCM: Mercury

EPA 7474: SCM: Mercury

EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.

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

EPA 8270-SIM: NPW and SCM: Alkylated PAHs.

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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.

Biological Tissue Matrix: **8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:** Lead; **8270D:** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO₃-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1,**

SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate.

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

Non-Potable Water

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;

EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH₃-BH, EPA

350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO₃-F,**

EPA 353.2: Nitrate-N, **SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D,**

EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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



CHAIN OF CUSTODY

PAGE _____ OF _____

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

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

Project Information

Project Name: Armstrong Dam Removal

Project Location: Braintree, MA

Project #: 1760

Project Manager: Aaron Rubin

ALPHA Quote #: M2015116

Turn-Around Time

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

Date Due:

Date Rec'd in Lab: 6/13/16

Report Information - Data Deliverables

☐ ADEX ☒ EMAIL

ALPHA Job #: L1620719

Billing Information

☐ Same as Client info PO #: On file

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 _____

Client Information

Client: Gomez & Sullivan Engineers

Address: PO Box 2179

Henniker, NH 03242

Phone: (603) 428-4960

Email: arubin@gomezandsullivan.com

Additional Project Information:

ANALYSIS										SAMPLE INFO	
VOC: ☒ 6260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15	METALS: ☐ RCRA5 ☐ RCRA8	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	<u>401 WA & see L17 Report</u>		☐ Field	☐ Lab to do
										Preservation	
										☐ Lab to do	
										Sample Comments	

A2-PEST-8081

TOTAL # BOTTLES

20719

	ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
			Date	Time		
01	16012-01	Sample 04	6/9/13	10:30	SE	ALR
02	02	05	6/9/13	11:40	SE	ALR
03	03	08	6/9/13	14:15	SE	ALR
04	04	07	6/9/13	15:00	SE	ALR
05	05	06	6/9/13	16:00	SE	ALR

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= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type
Preservative

Relinquished By:

Date/Time

Received By:

Date/Time

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

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



CHAIN OF CUSTODY

PAGE _____ OF _____

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

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

Project Information

Project Name: Amesbury Dam Removal
Project Location: Brantree, MA
Project #: 1760
Project Manager: Aaron Rubin
ALPHA Quote #: M2015116

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #: See back of invoice

Client Information

Client: Aaron Rubin
Address: PO BOX 217A
Henniker, NH 03242
Phone: (603) - 428 4960
Email:

Turn-Around Time

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

Date Due:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS												SAMPLE INFO			
VOC: ☐ 8260 ☐ 624 ☐ 524.2												A2-PEST-8081			
SVOC: ☐ ABN ☐ PAH															
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15												☐ Field ☐ Lab to do			
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13															
EPH: ☐ Ranges & Targets ☐ Ranges Only												Preservation ☐ Lab to do			
VPH: ☐ Ranges & Targets ☐ Ranges Only															
☐ PCB ☐ PEST												Sample Comments			
TPH: ☐ Quant Only ☐ Fingerprint															
6601 WPA SEP 6-2-10															

20719

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
06 16042-16	03	6/14	8:00	SE	ALP
07 07	02	6/14	8:45	SE	ALP
08 08	09	6/14	10:30	SE	ALP
09	10	6/14	12:30	SE	ALP
10	11	6/14	14:15	SE	ALP
09	01	6/14	15:00	SE	ALP

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= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type																				
Preservative																				

Relinquished By:	Date/Time	Received By:	Date/Time
<u>Aaron Rubin</u>	<u>6/14 16:00</u>	<u>Michael Best</u>	<u>6/14 18:50</u>

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

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\ECD6\2016\JUL\JUL27\
 Data File : F607271603.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 27 Jul 2016 5:15 pm
 Operator : ECD6:DP
 Sample : WG917917-1 (Sig #1); CCV (Sig #2)
 Misc : WG917917,GCAG62
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jul 28 10:54:57 2016
 Quant Method : O:\Organics\DATA\ECD6\2016\JUL\JUL27\PEST060316ECD6.M
 Quant Title : PESTICIDES BY 8081A
 QLast Update : Thu Jul 28 08:28:34 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1
 Signal #1 Phase : RTX 5
 Signal #1 Info : .25
 Signal #2 Phase: RTX CLP II
 Signal #2 Info : .25

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 I	BZ 192	50.000	50.000	0.0	103	0.00
2 S	TMX - Surrogate	50.000	44.239	11.5	94	0.00
3 S	DBOB	50.000	45.314	9.4	96	0.00
4 T	alpha-BHC	50.000	48.304	3.4	91	0.00
5 T	hexachlorobenzene	50.000	41.881	16.2	94	0.00
6 T	beta-BHC	50.000	41.249	17.5	90	0.00
7 T	gamma-BHC	50.000	47.512	5.0	91	0.00
8 T	delta-BHC	50.000	46.907	6.2	88	0.00
9 T	heptachlor	50.000	46.381	7.2	94	0.00
10 T	aldrin	50.000	47.180	5.6	94	0.00
11 T	chlorpyrifos	50.000	38.709	22.6#	81	0.00
12 T	heptachlor epoxide (B)	100.000	89.302	10.7	93	0.00
13 T	oxychlordane	100.000	89.335	10.7	93	0.00
14 T	gamma-chlordane	50.000	44.335	11.3	90	0.00
15 T	2,4'-DDE	50.000	44.294	11.4	92	0.00
16 T	endosulfan I	50.000	43.418	13.2	91	0.00
17 T	alpha-chlordane	50.000	43.932	12.1	91	0.00
18 T	trans-nonachlor	50.000	43.799	12.4	92	0.00
19 T	4,4'-DDE	50.000	45.547	8.9	87	0.00
20 T	dieldrin	50.000	45.623	8.8	91	0.00
21 T	2,4'-DDD	50.000	43.367	13.3	91	0.00
22 T	endrin	50.000	46.118	7.8	91	0.00
23 T	endosulfan II	50.000	43.403	13.2	88	0.00
24 T	4,4'-DDD	50.000	45.386	9.2	88	0.00
25 T	2,4'-DDT	50.000	41.918	16.2	85	0.00
26 T	cis-nonachlor	50.000	43.203	13.6	90	0.00
27 T	endrin aldehyde	50.000	41.345	17.3	89	0.00
28 T	endosulfan sulfate	50.000	41.720	16.6	87	0.00
29 T	4,4'-DDT	50.000	42.448	15.1	82	0.00
30 T	endrin ketone	50.000	42.300	15.4	86	0.00
31 T	methoxychlor	50.000	40.543	18.9	84	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\ECD6\2016\JUL\JUL27\
 Data File : F607271603.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 27 Jul 2016 5:15 pm
 Operator : ECD6:DP
 Sample : WG917917-1 (Sig #1); CCV (Sig #2)
 Misc : WG917917,GCAG62
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jul 28 10:54:57 2016
 Quant Method : O:\Organics\DATA\ECD6\2016\JUL\JUL27\PEST060316ECD6.M
 Quant Title : PESTICIDES BY 8081A
 QLast Update : Thu Jul 28 08:28:34 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1
 Signal #1 Phase : RTX 5
 Signal #1 Info : .25
 Signal #2 Phase: RTX CLP II
 Signal #2 Info : .25

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
32 T	mirex	50.000	40.048	19.9	86	0.00
33 S	BZ 198	50.000	40.684	18.6	83	0.00
34 S	DCB - Surrogate	50.000	40.034	19.9	83	0.00

Signal #2

1 I	BZ 192	50.000	50.000	0.0	109	0.00
2 S	TMX - Surrogate	50.000	45.295	9.4	99	0.00
3 S	DBOB	50.000	46.407	7.2	100	0.00
4 T	alpha-BHC	50.000	49.538	0.9	97	0.00
5 T	hexachlorobenzene	50.000	43.552	12.9	99	0.00
6 T	beta-BHC	50.000	43.860	12.3	96	0.00
7 T	gamma-BHC	50.000	48.545	2.9	97	0.00
8 T	delta-BHC	50.000	46.625	6.8	93	0.00
9 T	heptachlor	50.000	47.967	4.1	98	0.00
10 T	aldrin	50.000	48.569	2.9	99	0.00
11 T	chloropyrifos	50.000	37.078	25.8#	88	0.00
12 T	heptachlor epoxide (B)	50.000	46.696	6.6	98	0.00
13 T	oxychlordan	50.000	46.216	7.6	99	0.00
14 T	gamma-chlordane	50.000	46.225	7.5	95	0.00
15 T	2,4'-DDE	50.000	45.999	8.0	99	0.00
16 T	endosulfan I	50.000	42.436	15.1	90	0.00
17 T	alpha-chlordane	50.000	45.781	8.4	96	0.00
18 T	trans-nonachlor	50.000	49.143	1.7	104	0.00
19 T	4,4'-DDE	50.000	46.543	6.9	93	0.00
20 T	dieldrin	50.000	47.274	5.5	96	0.00
21 T	2,4'-DDD	50.000	45.127	9.7	96	0.00
22 T	endrin	50.000	47.879	4.2	100	0.00
23 T	endosulfan II	50.000	44.998	10.0	93	0.00
24 T	4,4'-DDD	50.000	46.303	7.4	93	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\ECD6\2016\JUL\JUL27\
 Data File : F607271603.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 27 Jul 2016 5:15 pm
 Operator : ECD6:DP
 Sample : WG917917-1 (Sig #1); CCV (Sig #2)
 Misc : WG917917,GCAG62
 ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jul 28 10:54:57 2016
 Quant Method : O:\Organics\DATA\ECD6\2016\JUL\JUL27\PEST060316ECD6.M
 Quant Title : PESTICIDES BY 8081A
 QLast Update : Thu Jul 28 08:28:34 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1
 Signal #1 Phase : RTX 5
 Signal #1 Info : .25
 Signal #2 Phase: RTX CLP II
 Signal #2 Info : .25

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
25 T	2,4'-DDT	50.000	43.412	13.2	90	0.00
26 T	cis-nonachlor	50.000	45.410	9.2	95	0.00
27 T	endrin aldehyde	50.000	42.854	14.3	92	0.00
28 T	endosulfan sulfate	50.000	43.860	12.3	98	0.00
29 T	4,4'-DDT	50.000	42.355	15.3	84	0.00
30 T	endrin ketone	50.000	42.171	15.7	90	0.00
31 T	methoxychlor	50.000	38.533	22.9#	83	0.00
32 T	mirex	50.000	41.741	16.5	94	0.00
33 S	BZ 198	50.000	40.799	18.4	89	0.00
34 S	DCB - Surrogate	50.000	40.349	19.3	89	0.00

Evaluate Continuing Calibration Report - Not Found

35 T	Toxaphene	-1.000	0.000	0.0	0	-0.08
36 T	Chlordane	-1.000	0.000	0.0	0	-0.08

Signal #2

35 T	Toxaphene	-1.000	0.000	0.0	0	-0.11
36 T	Chlordane	-1.000	0.000	0.0	0	-37.42#

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\ECD6\2016\JUL\JUL27\
 Data File : F607271613.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 27 Jul 2016 10:40 pm
 Operator : ECD6:DP
 Sample : WG917917-2 (Sig #1); CCV (Sig #2)
 Misc : WG917917,GCAG62
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jul 28 11:21:39 2016
 Quant Method : O:\Organics\DATA\ECD6\2016\JUL\JUL27\PEST060316ECD6.M
 Quant Title : PESTICIDES BY 8081A
 QLast Update : Thu Jul 28 11:11:39 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1
 Signal #1 Phase : RTX 5
 Signal #1 Info : .25
 Signal #2 Phase: RTX CLP II
 Signal #2 Info : .25

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 I	BZ 192	50.000	50.000	0.0	98	0.00
2 S	TMX - Surrogate	50.000	49.429	1.1	100	0.00
3 S	DBOB	50.000	51.068	-2.1	103	0.00
4 T	alpha-BHC	50.000	55.630	-11.3	100	0.00
5 T	hexachlorobenzene	50.000	47.220	5.6	101	0.00
6 T	beta-BHC	50.000	48.608	2.8	101	0.00
7 T	gamma-BHC	50.000	54.737	-9.5	100	0.00
8 T	delta-BHC	50.000	56.027	-12.1	100	0.00
9 T	heptachlor	50.000	52.620	-5.2	101	0.00
10 T	aldrin	50.000	53.246	-6.5	101	0.00
11 T	chlorpyrifos	50.000	45.287	9.4	90	0.00
12 T	heptachlor epoxide (B)	100.000	102.942	-2.9	102	0.00
13 T	oxychlordane	100.000	103.015	-3.0	102	0.00
14 T	gamma-chlordane	50.000	52.294	-4.6	101	0.00
15 T	2,4'-DDE	50.000	52.209	-4.4	103	0.00
16 T	endosulfan I	50.000	50.695	-1.4	101	0.00
17 T	alpha-chlordane	50.000	51.278	-2.6	101	0.00
18 T	trans-nonachlor	50.000	51.415	-2.8	102	0.00
19 T	4,4'-DDE	50.000	55.227	-10.5	101	0.00
20 T	dieldrin	50.000	53.769	-7.5	102	0.00
21 T	2,4'-DDD	50.000	51.582	-3.2	103	0.00
22 T	endrin	50.000	53.763	-7.5	101	0.00
23 T	endosulfan II	50.000	51.812	-3.6	100	0.00
24 T	4,4'-DDD	50.000	55.612	-11.2	102	0.00
25 T	2,4'-DDT	50.000	51.744	-3.5	100	0.00
26 T	cis-nonachlor	50.000	51.872	-3.7	103	0.00
27 T	endrin aldehyde	50.000	49.173	1.7	100	0.00
28 T	endosulfan sulfate	50.000	50.753	-1.5	100	0.00
29 T	4,4'-DDT	50.000	52.311	-4.6	96	0.00
30 T	endrin ketone	50.000	51.601	-3.2	100	0.00
31 T	methoxychlor	50.000	48.143	3.7	95	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\ECD6\2016\JUL\JUL27\
 Data File : F607271613.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 27 Jul 2016 10:40 pm
 Operator : ECD6:DP
 Sample : WG917917-2 (Sig #1); CCV (Sig #2)
 Misc : WG917917,GCAG62
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jul 28 11:21:39 2016
 Quant Method : O:\Organics\DATA\ECD6\2016\JUL\JUL27\PEST060316ECD6.M
 Quant Title : PESTICIDES BY 8081A
 QLast Update : Thu Jul 28 11:11:39 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1
 Signal #1 Phase : RTX 5
 Signal #1 Info : .25
 Signal #2 Phase: RTX CLP II
 Signal #2 Info : .25

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
32 T	mirex	50.000	48.940	2.1	100	0.00
33 S	BZ 198	50.000	51.269	-2.5	99	0.00
34 S	DCB - Surrogate	50.000	49.087	1.8	97	0.00

Signal #2

1 I	BZ 192	50.000	50.000	0.0	107	0.00
2 S	TMX - Surrogate	50.000	49.878	0.2	106	0.00
3 S	DBOB	50.000	51.742	-3.5	109	0.00
4 T	alpha-BHC	50.000	55.921	-11.8	107	0.00
5 T	hexachlorobenzene	50.000	48.453	3.1	107	0.00
6 T	beta-BHC	50.000	50.361	-0.7	108	0.00
7 T	gamma-BHC	50.000	54.867	-9.7	107	0.00
8 T	delta-BHC	50.000	54.625	-9.3	107	0.00
9 T	heptachlor	50.000	53.453	-6.9	107	0.00
10 T	aldrin	50.000	54.376	-8.8	108	0.00
11 T	chloropyrifos	50.000	42.538	14.9	99	0.00
12 T	heptachlor epoxide (B)	50.000	53.088	-6.2	109	0.00
13 T	oxychlordan	50.000	52.320	-4.6	110	0.00
14 T	gamma-chlordane	50.000	53.557	-7.1	108	0.00
15 T	2,4'-DDE	50.000	52.798	-5.6	111	0.00
16 T	endosulfan I	50.000	48.453	3.1	100	0.00
17 T	alpha-chlordane	50.000	52.825	-5.7	108	0.00
18 T	trans-nonachlor	50.000	56.829	-13.7	118	0.00
19 T	4,4'-DDE	50.000	55.656	-11.3	108	0.00
20 T	dieldrin	50.000	54.624	-9.2	108	0.00
21 T	2,4'-DDD	50.000	52.996	-6.0	110	0.00
22 T	endrin	50.000	55.209	-10.4	113	0.00
23 T	endosulfan II	50.000	52.326	-4.7	106	0.00
24 T	4,4'-DDD	50.000	55.623	-11.2	109	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\ECD6\2016\JUL\JUL27\
 Data File : F607271613.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 27 Jul 2016 10:40 pm
 Operator : ECD6:DP
 Sample : WG917917-2 (Sig #1); CCV (Sig #2)
 Misc : WG917917,GCAG62
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jul 28 11:21:39 2016
 Quant Method : O:\Organics\DATA\ECD6\2016\JUL\JUL27\PEST060316ECD6.M
 Quant Title : PESTICIDES BY 8081A
 QLast Update : Thu Jul 28 11:11:39 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1
 Signal #1 Phase : RTX 5
 Signal #1 Info : .25
 Signal #2 Phase: RTX CLP II
 Signal #2 Info : .25

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
25 T	2,4'-DDT	50.000	52.304	-4.6	106	0.00
26 T	cis-nonachlor	50.000	54.001	-8.0	111	0.00
27 T	endrin aldehyde	50.000	51.460	-2.9	108	0.00
28 T	endosulfan sulfate	50.000	52.307	-4.6	114	0.00
29 T	4,4'-DDT	50.000	52.095	-4.2	101	0.00
30 T	endrin ketone	50.000	51.268	-2.5	107	0.00
31 T	methoxychlor	50.000	47.345	5.3	99	0.00
32 T	mirex	50.000	50.074	-0.1	110	0.00
33 S	BZ 198	50.000	50.621	-1.2	108	0.00
34 S	DCB - Surrogate	50.000	47.025	6.0	101	0.00

Evaluate Continuing Calibration Report - Not Found

35 T	Toxaphene	-1.000	0.000	0.0	0	-0.08
36 T	Chlordane	-1.000	0.000	0.0	0	-0.08

Signal #2

35 T	Toxaphene	-1.000	0.000	0.0	0	-0.11
36 T	Chlordane	-1.000	0.000	0.0	0	-37.42#

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\ECD6\2016\JUL\JUL27\
 Data File : F607271624.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 28 Jul 2016 4:37 am
 Operator : ECD6:DP
 Sample : WG917917-3 (Sig #1); CCV (Sig #2)
 Misc : WG917917,GCAG62
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jul 28 11:28:17 2016
 Quant Method : O:\Organics\DATA\ECD6\2016\JUL\JUL27\PEST060316ECD6.M
 Quant Title : PESTICIDES BY 8081A
 QLast Update : Thu Jul 28 08:28:34 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1
 Signal #1 Phase : RTX 5
 Signal #1 Info : .25
 Signal #2 Phase: RTX CLP II
 Signal #2 Info : .25

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1 I	BZ 192	50.000	50.000	0.0	85	0.00
2 S	TMX - Surrogate	50.000	55.337	-10.7	96	0.00
3 S	DBOB	50.000	57.305	-14.6	100	0.00
4 T	alpha-BHC	50.000	61.720	-23.4#	95	0.00
5 T	hexachlorobenzene	50.000	52.455	-4.9	97	0.00
6 T	beta-BHC	50.000	53.566	-7.1	95	0.00
7 T	gamma-BHC	50.000	59.915	-19.8	94	0.00
8 T	delta-BHC	50.000	60.598	-21.2#	93	0.00
9 T	heptachlor	50.000	57.797	-15.6	96	0.00
10 T	aldrin	50.000	58.639	-17.3	96	0.00
11 T	chlorpyrifos	50.000	50.237	-0.5	85	0.00
12 T	heptachlor epoxide (B)	100.000	112.791	-12.8	97	0.00
13 T	oxychlordan	100.000	112.833	-12.8	97	0.00
14 T	gamma-chlordane	50.000	55.629	-11.3	92	0.00
15 T	2,4'-DDE	50.000	54.954	-9.9	94	0.00
16 T	endosulfan I	50.000	54.335	-8.7	93	0.00
17 T	alpha-chlordane	50.000	55.123	-10.2	94	0.00
18 T	trans-nonachlor	50.000	54.913	-9.8	94	0.00
19 T	4,4'-DDE	50.000	57.678	-15.4	91	0.00
20 T	dieldrin	50.000	57.581	-15.2	94	0.00
21 T	2,4'-DDD	50.000	55.927	-11.9	96	0.00
22 T	endrin	50.000	58.022	-16.0	93	0.00
23 T	endosulfan II	50.000	54.667	-9.3	91	0.00
24 T	4,4'-DDD	50.000	60.119	-20.2#	95	0.00
25 T	2,4'-DDT	50.000	51.153	-2.3	85	0.00
26 T	cis-nonachlor	50.000	53.846	-7.7	92	0.00
27 T	endrin aldehyde	50.000	50.495	-1.0	89	0.00
28 T	endosulfan sulfate	50.000	53.618	-7.2	91	0.00
29 T	4,4'-DDT	50.000	49.307	1.4	78	0.00
30 T	endrin ketone	50.000	51.294	-2.6	86	0.00
31 T	methoxychlor	50.000	49.128	1.7	83	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\ECD6\2016\JUL\JUL27\
 Data File : F607271624.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 28 Jul 2016 4:37 am
 Operator : ECD6:DP
 Sample : WG917917-3 (Sig #1); CCV (Sig #2)
 Misc : WG917917,GCAG62
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jul 28 11:28:17 2016
 Quant Method : O:\Organics\DATA\ECD6\2016\JUL\JUL27\PEST060316ECD6.M
 Quant Title : PESTICIDES BY 8081A
 QLast Update : Thu Jul 28 08:28:34 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1
 Signal #1 Phase : RTX 5
 Signal #1 Info : .25
 Signal #2 Phase: RTX CLP II
 Signal #2 Info : .25

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
32 T	mirex	50.000	49.699	0.6	88	0.00
33 S	BZ 198	50.000	51.470	-2.9	86	0.00
34 S	DCB - Surrogate	50.000	48.879	2.2	83	0.00

Signal #2

1 I	BZ 192	50.000	50.000	0.0	92	0.00
2 S	TMX - Surrogate	50.000	55.429	-10.9	102	0.00
3 S	DBOB	50.000	57.513	-15.0	105	0.00
4 T	alpha-BHC	50.000	62.068	-24.1#	102	0.00
5 T	hexachlorobenzene	50.000	53.923	-7.8	103	0.00
6 T	beta-BHC	50.000	55.580	-11.2	103	0.00
7 T	gamma-BHC	50.000	60.365	-20.7#	102	0.00
8 T	delta-BHC	50.000	59.799	-19.6	101	0.00
9 T	heptachlor	50.000	58.673	-17.3	102	0.00
10 T	aldrin	50.000	60.057	-20.1#	103	0.00
11 T	chloropyrifos	50.000	46.368	7.3	93	0.00
12 T	heptachlor epoxide (B)	50.000	57.931	-15.9	103	0.00
13 T	oxychlordan	50.000	57.376	-14.8	104	0.00
14 T	gamma-chlordane	50.000	57.384	-14.8	100	0.00
15 T	2,4'-DDE	50.000	56.585	-13.2	103	0.00
16 T	endosulfan I	50.000	52.085	-4.2	93	0.00
17 T	alpha-chlordane	50.000	55.164	-10.3	98	0.00
18 T	trans-nonachlor	50.000	60.418	-20.8#	108	0.00
19 T	4,4'-DDE	50.000	57.276	-14.6	96	0.00
20 T	dieldrin	50.000	57.923	-15.8	99	0.00
21 T	2,4'-DDD	50.000	57.395	-14.8	103	0.00
22 T	endrin	50.000	58.918	-17.8	104	0.00
23 T	endosulfan II	50.000	55.559	-11.1	97	0.00
24 T	4,4'-DDD	50.000	59.368	-18.7	101	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\ECD6\2016\JUL\JUL27\
 Data File : F607271624.D
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
 Acq On : 28 Jul 2016 4:37 am
 Operator : ECD6:DP
 Sample : WG917917-3 (Sig #1); CCV (Sig #2)
 Misc : WG917917,GCAG62
 ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
 Integration File signal 2: autoint2.e
 Quant Time: Jul 28 11:28:17 2016
 Quant Method : O:\Organics\DATA\ECD6\2016\JUL\JUL27\PEST060316ECD6.M
 Quant Title : PESTICIDES BY 8081A
 QLast Update : Thu Jul 28 08:28:34 2016
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1
 Signal #1 Phase : RTX 5
 Signal #1 Info : .25
 Signal #2 Phase: RTX CLP II
 Signal #2 Info : .25

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
25 T	2,4'-DDT	50.000	51.687	-3.4	90	0.00
26 T	cis-nonachlor	50.000	58.048	-16.1	103	0.00
27 T	endrin aldehyde	50.000	50.935	-1.9	93	0.00
28 T	endosulfan sulfate	50.000	55.506	-11.0	105	0.00
29 T	4,4'-DDT	50.000	48.387	3.2	81	0.00
30 T	endrin ketone	50.000	54.302	-8.6	98	0.00
31 T	methoxychlor	50.000	46.349	7.3	84	0.00
32 T	mirex	50.000	51.262	-2.5	97	0.00
33 S	BZ 198	50.000	51.585	-3.2	95	0.00
34 S	DCB - Surrogate	50.000	52.394	-4.8	97	0.00

Evaluate Continuing Calibration Report - Not Found

35 T	Toxaphene	-1.000	0.000	0.0	0	-0.08
36 T	Chlordane	-1.000	0.000	0.0	0	-0.08

Signal #2

35 T	Toxaphene	-1.000	0.000	0.0	0	-0.11
36 T	Chlordane	-1.000	0.000	0.0	0	-37.42#

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

SUMMARY OF SEDIMENT ANALYSIS

Account: GOMEZ&SUL - Gomez and Sullivan Engineers

Project: 1760

Samples Received by Alpha on 14-JUN-16

Location			4	5	8	8	7	7	6	6	3	3	2	2	9	9	1
Sampling Date			13-Jun-16	13-Jun-16	13-Jun-16	13-Jun-16	13-Jun-16	13-Jun-16	13-Jun-16	13-Jun-16	14-Jun-16	14-Jun-16	14-Jun-16	14-Jun-16	14-Jun-16	14-Jun-16	14-Jun-16
Lab Sample ID		Units	L1618042-01	L1618042-02	L1618042-03	L1618042-03	L1618042-04	L1618042-04	L1618042-05	L1618042-05	L1618042-06	L1618042-06	L1618042-07	L1618042-07	L1618042-08	L1618042-08	L1618042-11
Sample Qualifier						D		D		D		D		D		D	
PARAMETER	PRODUCT																
Solids, Total	A2-TS	%	30.9	32.2	21.3		56.4		24.6		62.4		44		49.7		36.7
Total Organic Carbon (Rep1)	A2-TOC-9060-2REPS	%	6.12	5.55	16.6		11.7		15		2.22		4.8		5.07		11
Total Organic Carbon (Rep2)	A2-TOC-9060-2REPS	%	5.97	4.71	17.3		11.9		16.3		2.47		3.66		5.18		11.7
% Total Gravel	A2-HYDRO-TGRAVEL	%	0.6	3.7	0.2		8.9		1		1.3		4		19.6		<0.100
% Coarse Sand	A2-HYDRO-CSAND	%	2.3	4	1.7		16.5		6.9		3.8		4.4		11.4		1.1
% Medium Sand	A2-HYDRO-MSAND	%	9.8	15.7	7.5		43.8		20.2		63.5		27		18.4		3.7
% Fine Sand	A2-HYDRO-FSAND	%	65.7	58.8	14.4		24.4		41.2		25.5		47		32.2		22.2
% Total Fines	A2-HYDRO-TFINE	%	21.6	17.8	76.2		6.4		30.7		5.9		17.6		18.4		73
Arsenic, Total	A2-AS-MCP6020T-10	mg/kg	3.02	12.5	23.9		3.3		15		3.18		4.38		10		3.5
Cadmium, Total	A2-CD-MCP6020T-10	mg/kg	0.3842	0.5432	21.85		0.6059		2.125		0.2541		0.6207		0.971		1.045
Chromium, Total	A2-CR-MCP6020T-10	mg/kg	5.16	5.5	161		9.31		17		6.31		35.4		21.1		5.62
Copper, Total	A2-CU-MCP6020T-10	mg/kg	6.15	8.93	140		23.2		54.3		8.2		314		101		139
Lead, Total	A2-PB-MCP6020T-10	mg/kg	12.6	24.7	401		52.1		116		32.7		93.6		144		26.5
Mercury, Total	A2-HG-7474T	mg/kg	<0.037	0.045	1.08		0.181		0.248		0.022		0.068		0.615		0.067
Nickel, Total	A2-NI-MCP6020T-10	mg/kg	4.25	5.77	30.5		8.21		24.5		5.26		8.41		9.31		4.32
Zinc, Total	A2-ZN-MCP6020T-10	mg/kg	67.2	89	1310		272		450		75		148		626		2210
Methylene chloride	MCP-8260HLW-10	ug/kg	<19.	<19.	<34.		<7.4		<22.		<680		<11.		<11		<15.
1,1-Dichloroethane	MCP-8260HLW-10	ug/kg	<2.9	<2.8	<5.1		<1.1		<3.3		<100		<1.7		<1.6		<2.3
Chloroform	MCP-8260HLW-10	ug/kg	<2.9	<2.8	<5.1		<1.1		<3.3		<100		<1.7		<1.6		<2.3
Carbon tetrachloride	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
1,2-Dichloropropane	MCP-8260HLW-10	ug/kg	<6.8	<6.6	<12.		<2.6		<7.6		<240		<4.0		<3.8		<5.4
Dibromochloromethane	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
1,1,2-Trichloroethane	MCP-8260HLW-10	ug/kg	<2.9	<2.8	<5.1		<1.1		<3.3		<100		<1.7		<1.6		<2.3
Tetrachloroethene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
Chlorobenzene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
Trichlorofluoromethane	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,2-Dichloroethane	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
1,1,1-Trichloroethane	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
Bromodichloromethane	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
trans-1,3-Dichloropropene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
cis-1,3-Dichloropropene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
1,3-Dichloropropene, Total	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
1,1-Dichloropropene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1

Bromoform	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,1,2,2-Tetrachloroethane	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
Benzene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
Toluene	MCP-8260HLW-10	ug/kg	<2.9	<2.8	<5.1		1.7		<3.3		<100		<1.7		<1.6		<2.3
Ethylbenzene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
Chloromethane	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Bromomethane	MCP-8260HLW-10	ug/kg	<3.9	<3.8	<6.8		<1.5		<4.4		<140		<2.3		<2.2		<3.1
Vinyl chloride	MCP-8260HLW-10	ug/kg	<3.9	<3.8	<6.8		<1.5		<4.4		<140		<2.3		<2.2		<3.1
Chloroethane	MCP-8260HLW-10	ug/kg	<3.9	<3.8	<6.8		<1.5		<4.4		<140		<2.3		<2.2		<3.1
1,1-Dichloroethene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
trans-1,2-Dichloroethene	MCP-8260HLW-10	ug/kg	<2.9	<2.8	<5.1		<1.1		<3.3		<100		<1.7		<1.6		<2.3
Trichloroethene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
1,2-Dichlorobenzene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,3-Dichlorobenzene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,4-Dichlorobenzene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Methyl tert butyl ether	MCP-8260HLW-10	ug/kg	<3.9	<3.8	<6.8		<1.5		<4.4		<140		<2.3		<2.2		<3.1
p/m-Xylene	MCP-8260HLW-10	ug/kg	<3.9	<3.8	<6.8		<1.5		<4.4		<140		<2.3		<2.2		<3.1
o-Xylene	MCP-8260HLW-10	ug/kg	<3.9	<3.8	<6.8		<1.5		<4.4		<140		<2.3		<2.2		<3.1
Xylenes, Total	MCP-8260HLW-10	ug/kg	<3.9	<3.8	<6.8		<1.5		<4.4		<140		<2.3		<2.2		<3.1
cis-1,2-Dichloroethene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
1,2-Dichloroethene, Total	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
Dibromomethane	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,2,3-Trichloropropane	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Styrene	MCP-8260HLW-10	ug/kg	<3.9	<3.8	<6.8		<1.5		<4.4		<140		<2.3		<2.2		<3.1
Dichlorodifluoromethane	MCP-8260HLW-10	ug/kg	<19.	<19.	<34.		<7.4		<22.		<680		<11.		<11.		<15.
Acetone	MCP-8260HLW-10	ug/kg	280	310	660		78		400		<2400		440		270		300
Carbon disulfide	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Methyl ethyl ketone	MCP-8260HLW-10	ug/kg	80	92	190		23		98		<680		110		82		73
Methyl isobutyl ketone	MCP-8260HLW-10	ug/kg	<19.	<19.	<34.		<7.4		<22.		<680		<11.		<11.		<15.
2-Hexanone	MCP-8260HLW-10	ug/kg	<19.	<19.	<34.		<7.4		<22.		<680		<11.		<11.		<15.
Bromochloromethane	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Tetrahydrofuran	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
2,2-Dichloropropane	MCP-8260HLW-10	ug/kg	<9.7	<9.5	<17.		<3.7		<11.		<340		<5.7		<5.4		<7.6
1,2-Dibromoethane	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,3-Dichloropropane	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,1,1,2-Tetrachloroethane	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
Bromobenzene	MCP-8260HLW-10	ug/kg	<9.7	<9.5	<17.		<3.7		<11.		<340		<5.7		<5.4		<7.6
n-Butylbenzene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
sec-Butylbenzene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
tert-Butylbenzene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
o-Chlorotoluene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
p-Chlorotoluene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,2-Dibromo-3-chloropropane	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Hexachlorobutadiene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Isopropylbenzene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		1.4		16
p-Isopropyltoluene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
Naphthalene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1

n-Propylbenzene	MCP-8260HLW-10	ug/kg	<1.9	<1.9	<3.4		<0.74		<2.2		<68.		<1.1		<1.1		<1.5
1,2,3-Trichlorobenzene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,2,4-Trichlorobenzene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,3,5-Trimethylbenzene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,2,4-Trimethylbenzene	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Diethyl ether	MCP-8260HLW-10	ug/kg	<9.7	<9.5	<17.		<3.7		<11.		<340		<5.7		<5.4		<7.6
Diisopropyl Ether	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Ethyl-Tert-Butyl-Ether	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
Tertiary-Amyl Methyl Ether	MCP-8260HLW-10	ug/kg	<7.8	<7.6	<14.		<3.0		<8.7		<270		<4.5		<4.3		<6.1
1,4-Dioxane	MCP-8260HLW-10	ug/kg	<78.	<76.	<140		<30.		<87.		<6800		<45.		<43.		<61.
Naphthalene	A2-PAH/PCBCONG	ug/kg	<12.8	<11.4	87.8		47.3		59.9		20.2		193		444		23.2
Acenaphthylene	A2-PAH/PCBCONG	ug/kg	<12.8	<11.4	133		28		160		84.6		189		168		<10.3
Acenaphthene	A2-PAH/PCBCONG	ug/kg	<12.8	<11.4	205		62.4		76.6		48.1			3100	1480		18
Fluorene	A2-PAH/PCBCONG	ug/kg	<12.8	<11.4	251		98.3		173		108			5410	1860	1800	<10.3
Phenanthrene	A2-PAH/PCBCONG	ug/kg	18.2	62.1	2000		1090		2330		881			59200	4500	4320	<10.3
Anthracene	A2-PAH/PCBCONG	ug/kg	<12.8	<11.4	269		138		224		172			14400	750		<10.3
Fluoranthene	A2-PAH/PCBCONG	ug/kg	52.3	137	4880	5020	2280	2180	6300	6020	1660	1580		102000	6190	6390	<10.3
Pyrene	A2-PAH/PCBCONG	ug/kg	43.6	121	4310	4160	1730	1650	4680	4670	1400	1340		74000	7790	4840	<10.3
Benz(a)anthracene	A2-PAH/PCBCONG	ug/kg	20.9	58.2	2470		950		2960		819			36600	3860	2460	<10.3
Chrysene	A2-PAH/PCBCONG	ug/kg	34.5	83.9	3070		1160		3670	3920	838			43700	2500	2100	<10.3
Benzo(b)fluoranthene	A2-PAH/PCBCONG	ug/kg	36.1	93.9	3870	3270	1420	1270	4820	3720	705			39900	2650	2200	<10.3
Benzo(k)fluoranthene	A2-PAH/PCBCONG	ug/kg	35.3	59.8	2110		673		2030		642			33400	1660	2150	<10.3
Benzo(a)pyrene	A2-PAH/PCBCONG	ug/kg	25.8	65.6	2760		980		2780		746			38000	2100	2060	<10.3
Indeno(1,2,3-cd)Pyrene	A2-PAH/PCBCONG	ug/kg	37.9	70.4	2310		883		2380		532			30200	1350		<10.3
Dibenz(a,h)anthracene	A2-PAH/PCBCONG	ug/kg	<12.8	12.9	529		172		521		124			6340	364		<10.3
Benzo(ghi)perylene	A2-PAH/PCBCONG	ug/kg	27.9	57.3	2320		817		2240		501			26400	1220		<10.3
CI2-BZ#8	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	<1.82		<0.670		1.82		<0.612		<0.882		<0.801		<1.03
CI3-BZ#18	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	<1.82		<0.670		2.05		1.44		<0.882		<0.801		<1.03
CI3-BZ#28	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	<1.82		1.25		6.3		3.84		2.25		<0.801		<1.03
CI4-BZ#44	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	11.4		0.804		4.04		2.18		2.27		<0.801		<1.03
CI4-BZ#49	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	10.9		4.86		3.51		1.86		1.23		<0.801		<1.03
CI4-BZ#52	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	40.5		2.15		7.11		2.81		5.75		<0.801		<1.03
CI4-BZ#66	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	9.62		2.9		4.81		1.76		2.33		<0.801		<1.03
CI5-BZ#87	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	14.3		1.6		5.83		1.28		2.66		<0.801		<1.03
CI5-BZ#101	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	35.1		5.94		21.3		2.38		7.14		<0.801		<1.03
CI5-BZ#105	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	<1.82		<0.670		5.22		<0.612		<0.882		<0.801		<1.03
CI5-BZ#118	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	31.2		5.07		8.64		2.12		5.14		<0.801		<1.03
CI6-BZ#128	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	7.78		1.89		12.1		0.796		<0.882		<0.801		<1.03
CI6-BZ#138	A2-PAH/PCBCONG	ug/kg	<1.28	1.14	44.4		7.81		88.9		5.3		12		3.44		<1.03
CI6-BZ#153	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	37		5.51		81.6		4.8		10.9		2.3		<1.03
CI7-BZ#170	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	17.4		1.48		52.6		2.41		5.57		<0.801		<1.03
CI7-BZ#180	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	38.1		1.99		84.2		4.68		11.2		2.72		<1.03
CI7-BZ#183	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	8.03		<0.670		19.8		1.18		2.6		<0.801		<1.03
CI7-BZ#184	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	<1.82		<0.670		<1.51		<0.612		<0.882		<0.801		<1.03
CI7-BZ#187	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	21.1		1.07		43.5		2.17		6.04		1.4		<1.03
CI8-BZ#195	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	4.41		<0.670		9.22		<0.612		1.61		<0.801		<1.03
CI9-BZ#206	A2-PAH/PCBCONG	ug/kg	<1.28	<1.14	3.88		<0.670		4.33		<0.612		1.07		<0.801		<1.03

Cl10-BZ#209	A2-PAH/PCBCONG	ug/kg	<1.28	1.35	62.4		2.02		1.64		<0.612		12.7		2.6		<1.03
C9-C18 Aliphatics	EPH-10	mg/kg	<21.0	<19.8	55.2		<11.7		<26.3		<10.5			<74.8		228	<18.0
C19-C36 Aliphatics	EPH-10	mg/kg	23.9	20.7	580		90.9		229		70.2			254		273	33.6
C11-C22 Aromatics	EPH-10	mg/kg	27.7	<19.8	558		124		143		52.7			1010		736	59.7
C11-C22 Aromatics, Adjusted	EPH-10	mg/kg	27.7	<19.8	552		85.7		133		44.9			582		682	59.7

SUMMARY OF SEDIMENT ANALYSIS (PESTICIDES)

Results For L1620719

Account:GOMEZ&SUL - Gomez and Sullivan Engineers

Project: 1760

Samples Received by Alpha on 13-JUN-16

LOCATION		4		5		8		7		6		3		2		9		1	
SAMPLING DATE		13-Jun-16		13-Jun-16		13-Jun-16		13-Jun-16		13-Jun-16		14-Jun-16		14-Jun-16		14-Jun-16		14-Jun-16	
Lab Sample ID		L1620719-01	Units	L1620719-02	Units	L1620719-03	Units	L1620719-04	Units	L1620719-05	Units	L1620719-06	Units	L1620719-07	Units	L1620719-08	Units	L1620719-09	Units
SAMPLE QUALIFIER						D		D		D		D		D		D			
PARAMETER	PRODUCT																		
Solids, Total	A2-TS	30.9	%	32.2	%	21.3	%	56.4	%	24.6	%	62.4	%	44	%	49.7	%	36.7	%
4,4'-DDD	A2-MCP-8081-10	2.82	ug/kg	11.7	ug/kg	551	ug/kg	12	ug/kg	33.9	ug/kg	11.8	ug/kg	23.2	ug/kg	7.16	ug/kg	<0.529	ug/kg
4,4'-DDE	A2-MCP-8081-10	2.69	ug/kg	9.15	ug/kg	126	ug/kg	3.55	ug/kg	27.3	ug/kg	5.67	ug/kg	11.7	ug/kg	10.8	ug/kg	<0.529	ug/kg
4,4'-DDT	A2-MCP-8081-10	<0.623	ug/kg	0.647	ug/kg	53	ug/kg	5.46	ug/kg	48.9	ug/kg	<2.94	ug/kg	20.7	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Aldrin	A2-MCP-8081-10	<1.00	ug/kg	<1.00	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<1.00	ug/kg
Alpha-BHC	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Beta-BHC	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Delta-BHC	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Dieldrin	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	16.6	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Endosulfan I	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Endosulfan II	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Endosulfan sulfate	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Endrin	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Endrin ketone	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
gamma-BHC	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Heptachlor	A2-MCP-8081-10	<0.623	ug/kg	<0.574	ug/kg	<9.19	ug/kg	<3.43	ug/kg	<8.08	ug/kg	<2.94	ug/kg	<4.42	ug/kg	<3.91	ug/kg	<0.529	ug/kg
Heptachlor epoxide	A2-MCP-8081-10	<1.24	ug/kg	<1.15	ug/kg	<18.4	ug/kg	<6.86	ug/kg	<16.2	ug/kg	<5.89	ug/kg	<8.83	ug/kg	<7.83	ug/kg	<1.06	ug/kg
Hexachlorobenzene	A2-MCP-8081-10	<2.00	ug/kg	<2.00	ug/kg	<18.4	ug/kg	<6.86	ug/kg	<16.2	ug/kg	<5.89	ug/kg	<8.83	ug/kg	<7.83	ug/kg	<2.00	ug/kg
Methoxychlor	A2-MCP-8081-10	<6.23	ug/kg	<5.74	ug/kg	<91.9	ug/kg	<34.3	ug/kg	<80.8	ug/kg	<29.4	ug/kg	237	ug/kg	<39.1	ug/kg	<5.29	ug/kg
Chlordane	A2-MCP-8081-10	<31.3	ug/kg	<28.8	ug/kg	<461.	ug/kg	<172.	ug/kg	<406.	ug/kg	<148.	ug/kg	<222.	ug/kg	<196.	ug/kg	<26.6	ug/kg