II. Suggested Format for the Remediation General Permit Notice of Change (NOC)

A. General site information

<table>
<tr><td colspan="4">1. NPDES permit number assigned by EPA: MAG910768</td></tr>
<tr><td rowspan="2">2. Name of site:
3686, 3688, & 3690 Washington Street - Forest Hills</td><td colspan="3">Site address: 3686, 3688, & 3690 Washington Street - Forest Hills
Street:</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02130</td></tr>
<tr><td rowspan="4">3. Site owner
Residences at Forest Hills Station, LLP

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other, if so, describe:</td><td colspan="3">Contact Person: Andrew Kaye</td></tr>
<tr><td colspan="2">Telephone: (781) 890 5600 x101</td><td>Email: akaye@criteriondp.com</td></tr>
<tr><td colspan="3">Mailing address: 1601 Trapelo Road Suite 280
Street:</td></tr>
<tr><td>City: Waltham</td><td>State: MA</td><td>Zip: 02451</td></tr>
<tr><td rowspan="4">4. Site operator, if different than owner
Dimeo Construction Company</td><td colspan="3">Contact Person: Martin Abt</td></tr>
<tr><td colspan="2">Telephone: 401-226-1422</td><td>Email: mabt@dimeo.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 4 Hyde Park</td></tr>
<tr><td>City: Jamaica Plain</td><td>State: MA</td><td>Zip: 02130</td></tr>
<tr><td>5. Discharge identification:
MA72-36</td><td>Discharge location:
CSO 023</td><td colspan="2">Receiving water(s):
Charles River</td></tr>
</table>

B. Type of change(s) requested

	Requested change (check all that apply):
☐	1. Request for reduction in monitoring requirements to no less than once per year, based on monitoring data attached in accordance with Appendix IV, Part 2 instructions. Written approval by EPA is required for this change to be effective.
☐	i. Influent monitoring requirement reduction based on monitoring data for six (6) consecutive months and ten (10) samples.
☐	ii. Effluent monitoring requirement reduction based on monitoring data for six (6) consecutive months and ten (10) samples that are in compliance with the RGP effluent limitations, and data and BMP requirements.
☐	2. Request for site-specific effluent flow limitation, which will not exceed 1.0 MGD or the design flow of the treatment system, or site-specific monitoring requirement that eliminates flow meter requirement based on written rationale attached in accordance with Appendix IV, Part 2 instructions. Written approval by EPA is required for this change to be effective.
☐	3. Request for a change in pH range approved by NHDES, based on supporting documentation attached in accordance with Appendix IV, Part 2 instructions. Written approval by EPA is required for this change to be effective.
☐	4. Request for change in authorized pollutants or pollutant parameters, based on monitoring data attached in accordance with Appendix IV, Part 2 instructions. This type of change requires written approval by EPA. Additional effluent limitations and/or monitoring requirements may apply.
☐	5. Request to discharge chemical(s) and/or additive(s) that were not disclosed in the NOI submitted for the site, based on written rationale and/or monitoring data attached in accordance with Appendix IV, Part 2 instructions. Written approval by EPA is required for this change to be effective.
☐	6. Change to administrative information. Supporting documentation is attached in accordance with Appendix IV, Part 2 instructions.
☐	7. Notification of a change in discharge location. The receiving water information submitted with the NOI for the site remains unchanged. Supporting documentation is attached in accordance with Appendix IV, Part 2 instructions.
☐	8. Notification of a change in activity area. The receiving water information submitted with the NOI for the site and the operator named in the authorization to discharge remain unchanged. Any change in treatment or discharge location are also included in the NOC, or are unchanged. Supporting documentation is attached in accordance with Appendix IV, Part 2 instructions.
☐	9. Notification of a change to a treatment system or process that adds or removes any major component. Supporting rationale is attached in accordance with Appendix IV, Part 2 instructions.
☐	10. Notification of a temporary cessation of discharge greater than 90 days. Supporting rationale is attached in accordance with Appendix IV, Part 2 instructions.

Request to change effluent limitation values for discharge as well as WQBEL and TBEL calculated values.

Data obtained previously was incorrectly inputed to the MALimitBook Excel document. Hardness values analyzed by a laboratory testing agency and a hand-held water meter unit indicated a influent hardness value of 269 mg/l and a receiving water body hardness value of 96.5 mg/l.

C. Certification requirement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
Notification provided to the appropriate State, including a copy of this NOC. Check one: Yes ■ No ☐
Notification has been provided to the municipality in which the discharge is located, including a copy of this NOC, if requested. Check one: Yes ■ No ☐
Notification has been provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOC, if requested. Check one: Yes ☐ No ☐ NA ■
Signature:  Date: 5/14/18
Print Name and Title: Martin Abt Project Superintendent

ANALYTICAL REPORT

Lab Number:	L1815300
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	FOREST HILLS
Project Number:	6130
Report Date:	05/04/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

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

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1815300-01	INF 4-30	GROUNDWATER	ROXBURY, MA	04/30/18 11:50	04/30/18
L1815300-02	EFF 4-30	GROUNDWATER	ROXBURY, MA	04/30/18 12:00	04/30/18

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

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: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

Case Narrative (continued)

Sample Receipt

L1815300-01 and -02: The collection time was obtained from the container label.

The analyses performed were specified by the client.

Total Metals

The WG1111870-3 MS recovery, performed on L1815300-01, is outside the acceptance criteria for mercury (68%). A post digestion spike was performed and was within acceptance criteria.

The WG1111870-5 MS recovery, performed on L1815300-02, is outside the acceptance criteria for mercury (38%). A post digestion spike was performed and was within acceptance criteria.

The WG1111843-4 Laboratory Duplicate RPD for cadmium (52%), performed on L1815300-01, is above the acceptance criteria; however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

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:  Amita Naik

Title: Technical Director/Representative Date: 05/04/18

ORGANICS

VOLATILES

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

SAMPLE RESULTS

Lab ID: L1815300-01
Client ID: INF 4-30
Sample Location: ROXBURY, MA

Date Collected: 04/30/18 11:50
Date Received: 04/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Groundwater
Analytical Method: 1,8260C
Analytical Date: 05/03/18 04:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	1.0	--	1
Tert-Butyl Alcohol	ND		ug/l	10	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	95		70-130

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

SAMPLE RESULTS

Lab ID: L1815300-02
Client ID: EFF 4-30
Sample Location: ROXBURY, MA

Date Collected: 04/30/18 12:00
Date Received: 04/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Groundwater
Analytical Method: 1,8260C
Analytical Date: 05/02/18 04:58
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	1.0	--	1
Tert-Butyl Alcohol	ND		ug/l	10	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	104		70-130

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/01/18 21:23
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1111883-5					
Methyl tert butyl ether	ND		ug/l	1.0	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 05/02/18 19:24
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1112572-5					
Methyl tert butyl ether	ND		ug/l	1.0	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOREST HILLS

Project Number: 6130

Lab Number: L1815300

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1111883-3 WG1111883-4								
Methyl tert butyl ether	100		110		63-130	10		20
Tert-Butyl Alcohol	108		**134**	Q	70-130	**21**	Q	20
Tertiary-Amyl Methyl Ether	100		110		66-130	10		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	92		97		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	96		95		70-130
Dibromofluoromethane	99		101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOREST HILLS

Project Number: 6130

Lab Number: L1815300

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1112572-3 WG1112572-4								
Methyl tert butyl ether	83		88		63-130	6		20
Tert-Butyl Alcohol	104		114		70-130	9		20
Tertiary-Amyl Methyl Ether	80		85		66-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	118		115		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	107		106		70-130
Dibromofluoromethane	97		98		70-130

SEMIVOLATILES

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

SAMPLE RESULTS

Lab ID: L1815300-01
Client ID: INF 4-30
Sample Location: ROXBURY, MA

Date Collected: 04/30/18 11:50
Date Received: 04/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Groundwater
Analytical Method: 1,8270D-SIM
Analytical Date: 05/02/18 11:38
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 05/01/18 02:06

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	95		10-120
4-Terphenyl-d14	91		41-149

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

SAMPLE RESULTS

Lab ID: L1815300-02
Client ID: EFF 4-30
Sample Location: ROXBURY, MA

Date Collected: 04/30/18 12:00
Date Received: 04/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Groundwater
Analytical Method: 1,8270D-SIM
Analytical Date: 05/02/18 12:05
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 05/01/18 02:06

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	87		10-120
4-Terphenyl-d14	83		41-149

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 05/03/18 11:04
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 04/30/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1111119-1					
Acenaphthene	ND		ug/l	0.10	--
Fluoranthene	ND		ug/l	0.10	--
Naphthalene	ND		ug/l	0.10	--
Benzo(a)anthracene	ND		ug/l	0.10	--
Benzo(a)pyrene	ND		ug/l	0.10	--
Benzo(b)fluoranthene	ND		ug/l	0.10	--
Benzo(k)fluoranthene	ND		ug/l	0.10	--
Chrysene	ND		ug/l	0.10	--
Acenaphthylene	ND		ug/l	0.10	--
Anthracene	ND		ug/l	0.10	--
Benzo(ghi)perylene	ND		ug/l	0.10	--
Fluorene	ND		ug/l	0.10	--
Phenanthrene	ND		ug/l	0.10	--
Dibenzo(a,h)anthracene	ND		ug/l	0.10	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	--
Pyrene	ND		ug/l	0.10	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	30		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	92		15-120
2,4,6-Tribromophenol	88		10-120
4-Terphenyl-d14	92		41-149

Lab Control Sample Analysis
Batch Quality Control

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1111119-2 WG1111119-3								
Acenaphthene	77		78		40-140	1		40
Fluoranthene	86		86		40-140	0		40
Naphthalene	75		78		40-140	4		40
Benzo(a)anthracene	80		80		40-140	0		40
Benzo(a)pyrene	87		88		40-140	1		40
Benzo(b)fluoranthene	88		86		40-140	2		40
Benzo(k)fluoranthene	86		84		40-140	2		40
Chrysene	78		78		40-140	0		40
Acenaphthylene	85		87		40-140	2		40
Anthracene	80		80		40-140	0		40
Benzo(ghi)perylene	70		71		40-140	1		40
Fluorene	77		75		40-140	3		40
Phenanthrene	77		78		40-140	1		40
Dibenzo(a,h)anthracene	80		88		40-140	10		40
Indeno(1,2,3-cd)pyrene	77		85		40-140	10		40
Pyrene	86		87		40-140	1		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOREST HILLS

Project Number: 6130

Lab Number: L1815300

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1111119-2 WG1111119-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	46		51		21-120
Phenol-d6	29		32		10-120
Nitrobenzene-d5	74		74		23-120
2-Fluorobiphenyl	95		106		15-120
2,4,6-Tribromophenol	86		87		10-120
4-Terphenyl-d14	98		100		41-149

METALS

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

SAMPLE RESULTS

Lab ID: L1815300-01
Client ID: INF 4-30
Sample Location: ROXBURY, MA
Date Collected: 04/30/18 11:50
Date Received: 04/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Groundwater

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.00400	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Cadmium, Total	0.00027		mg/l	0.00020	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Copper, Total	0.00466		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Iron, Total	1.18		mg/l	0.050	--	1	05/03/18 08:30	05/03/18 13:50	EPA 3005A	19,200.7	LC
Lead, Total	0.00406		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Mercury, Total	ND		mg/l	0.00020	--	1	05/02/18 14:15	05/02/18 21:30	EPA 245.1	3,245.1	EA
Nickel, Total	0.00203		mg/l	0.00200	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Zinc, Total	0.01785		mg/l	0.01000	--	1	05/03/18 08:30	05/03/18 12:28	EPA 3005A	3,200.8	AM
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	269		mg/l	0.660	NA	1	05/03/18 08:30	05/03/18 13:50	EPA 3005A	19,200.7	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		05/03/18 12:28	NA	107,-	

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

SAMPLE RESULTS

Lab ID: L1815300-02
Client ID: EFF 4-30
Sample Location: ROXBURY, MA
Sample Depth:
Matrix: Groundwater

Date Collected: 04/30/18 12:00
Date Received: 04/30/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.00400	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Arsenic, Total	0.00574		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Cadmium, Total	0.00122		mg/l	0.00020	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Copper, Total	ND		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Iron, Total	0.071		mg/l	0.050	--	1	05/03/18 08:30	05/03/18 14:47	EPA 3005A	19,200.7	LC
Lead, Total	ND		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Mercury, Total	ND		mg/l	0.00020	--	1	05/02/18 14:15	05/02/18 21:35	EPA 245.1	3,245.1	EA
Nickel, Total	ND		mg/l	0.00200	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Zinc, Total	ND		mg/l	0.01000	--	1	05/03/18 08:30	05/03/18 12:32	EPA 3005A	3,200.8	AM
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	ND		mg/l	0.660	NA	1	05/03/18 08:30	05/03/18 14:47	EPA 3005A	19,200.7	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		05/03/18 12:32	NA	107,-	

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1111843-1										
Antimony, Total	ND		mg/l	0.00400	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM
Copper, Total	ND		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM
Lead, Total	ND		mg/l	0.00100	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM
Nickel, Total	ND		mg/l	0.00200	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM
Silver, Total	ND		mg/l	0.00040	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM
Zinc, Total	ND		mg/l	0.01000	--	1	05/03/18 08:30	05/03/18 12:12	3,200.8	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1111845-1										
Iron, Total	ND		mg/l	0.050	--	1	05/03/18 08:30	05/03/18 13:42	19,200.7	LC

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 01-02 Batch: WG1111845-1										
Hardness	ND		mg/l	0.660	NA	1	05/03/18 08:30	05/03/18 13:42	19,200.7	LC

Prep Information

Digestion Method: EPA 3005A

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1111870-1										
Mercury, Total	ND		mg/l	0.00020	--	1	05/02/18 14:15	05/02/18 21:26	3,245.1	EA

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOREST HILLS

Project Number: 6130

Lab Number: L1815300

Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1111843-2								
Antimony, Total	92		-		85-115	-		
Arsenic, Total	105		-		85-115	-		
Cadmium, Total	110		-		85-115	-		
Chromium, Total	95		-		85-115	-		
Copper, Total	96		-		85-115	-		
Lead, Total	107		-		85-115	-		
Nickel, Total	100		-		85-115	-		
Selenium, Total	101		-		85-115	-		
Silver, Total	100		-		85-115	-		
Zinc, Total	103		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1111845-2								
Iron, Total	105		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 Batch: WG1111845-2								
Hardness	102		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1111870-2								
Mercury, Total	104		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111843-3 QC Sample: L1815300-01 Client ID: INF 4-30												
Antimony, Total	ND	0.5	0.5496	110		-	-		70-130	-		20
Arsenic, Total	ND	0.12	0.1291	108		-	-		70-130	-		20
Cadmium, Total	0.00027	0.051	0.05508	107		-	-		70-130	-		20
Chromium, Total	ND	0.2	0.1898	95		-	-		70-130	-		20
Copper, Total	0.00466	0.25	0.2436	96		-	-		70-130	-		20
Lead, Total	0.00406	0.51	0.5715	111		-	-		70-130	-		20
Nickel, Total	0.00203	0.5	0.4850	96		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1226	102		-	-		70-130	-		20
Silver, Total	ND	0.05	0.04855	97		-	-		70-130	-		20
Zinc, Total	0.01785	0.5	0.5174	100		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111843-5 QC Sample: L1815482-01 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.4890	98		-	-		70-130	-		20
Arsenic, Total	ND	0.12	0.1312	109		-	-		70-130	-		20
Cadmium, Total	ND	0.051	0.05698	112		-	-		70-130	-		20
Chromium, Total	0.00119	0.2	0.1914	95		-	-		70-130	-		20
Copper, Total	0.0035	0.25	0.2449	96		-	-		70-130	-		20
Lead, Total	ND	0.51	0.5784	113		-	-		70-130	-		20
Nickel, Total	ND	0.5	0.4928	98		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1271	106		-	-		70-130	-		20
Silver, Total	ND	0.05	0.05080	102		-	-		70-130	-		20
Zinc, Total	0.0105	0.5	0.5364	105		-	-		70-130	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111845-3 QC Sample: L1815300-01 Client ID: INF 4-30										
Iron, Total	1.18	1	2.16	98		-	-	75-125	-	20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111845-3 QC Sample: L1815300-01 Client ID: INF 4-30										
Hardness	269	66.2	324	83		-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111845-7 QC Sample: L1815482-01 Client ID: MS Sample										
Iron, Total	ND	1	1.03	103		-	-	75-125	-	20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111845-7 QC Sample: L1815482-01 Client ID: MS Sample										
Hardness	116	66.2	176	91		-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111870-3 QC Sample: L1815300-01 Client ID: INF 4-30										
Mercury, Total	ND	0.005	0.00338	**68**	Q	-	-	70-130	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111870-5 QC Sample: L1815300-02 Client ID: EFF 4-30										
Mercury, Total	ND	0.005	0.00188	**38**	Q	-	-	70-130	-	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111843-4 QC Sample: L1815300-01 Client ID: INF 4-30						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	ND	ND	mg/l	NC		20
Cadmium, Total	0.00027	0.00047	mg/l	**52**	Q	20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	0.00466	0.00483	mg/l	3		20
Lead, Total	0.00406	0.00408	mg/l	1		20
Nickel, Total	0.00203	0.00201	mg/l	1		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.01785	0.01664	mg/l	7		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111843-6 QC Sample: L1815482-01 Client ID: DUP Sample						
Chromium, Total	0.00119	0.00113	mg/l	5		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111845-4 QC Sample: L1815300-01 Client ID: INF 4-30						
Iron, Total	1.18	1.15	mg/l	3		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111845-4 QC Sample: L1815300-01 Client ID: INF 4-30						
Hardness	269	268	mg/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111845-8 QC Sample: L1815482-01 Client ID: DUP Sample						
Iron, Total	ND	ND	mg/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111870-4 QC Sample: L1815300-01 Client ID: INF 4-30					
Mercury, Total	ND	ND	mg/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1111870-6 QC Sample: L1815300-02 Client ID: EFF 4-30					
Mercury, Total	ND	ND	mg/l	NC	20

INORGANICS
&
MISCELLANEOUS

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

SAMPLE RESULTS

Lab ID: L1815300-01
Client ID: INF 4-30
Sample Location: ROXBURY, MA

Date Collected: 04/30/18 11:50
Date Received: 04/30/18
Field Prep: Not Specified

Sample Depth:
Matrix: Groundwater

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	32.		mg/l	5.0	NA	1	-	05/03/18 23:40	121,2540D	CW
Cyanide, Total	ND		mg/l	0.005	--	1	05/01/18 07:33	05/01/18 13:54	121,4500CN-CE	LH
pH (H)	7.5		SU	-	NA	1	-	04/30/18 23:06	121,4500H+-B	AS
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	05/01/18 16:30	05/01/18 23:08	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	4.00	--	1	05/01/18 22:50	05/01/18 23:40	74,1664A	MM
Chromium, Hexavalent	ND		mg/l	0.010	--	1	05/01/18 00:20	05/01/18 00:45	1,7196A	MA
Anions by Ion Chromatography - Westborough Lab										
Chloride	1220		mg/l	25.0	--	50	-	05/01/18 01:32	44,300.0	JR

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

SAMPLE RESULTS

Lab ID: L1815300-02
Client ID: EFF 4-30
Sample Location: ROXBURY, MA
Sample Depth:
Matrix: Groundwater

Date Collected: 04/30/18 12:00
Date Received: 04/30/18
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/03/18 23:40	121,2540D	CW
Cyanide, Total	ND		mg/l	0.005	--	1	05/01/18 07:33	05/01/18 13:55	121,4500CN-CE	LH
pH (H)	7.8		SU	-	NA	1	-	04/30/18 23:06	121,4500H+-B	AS
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	05/01/18 16:30	05/01/18 23:09	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	4.00	--	1	05/01/18 22:50	05/01/18 23:40	74,1664A	MM
Chromium, Hexavalent	ND		mg/l	0.010	--	1	05/01/18 00:20	05/01/18 00:46	1,7196A	MA
Anions by Ion Chromatography - Westborough Lab										
Chloride	1190		mg/l	25.0	--	50	-	05/01/18 01:44	44,300.0	JR

Project Name: FOREST HILLS
Project Number: 6130
Lab Number: L1815300
Report Date: 05/04/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1111225-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	05/01/18 00:20	05/01/18 00:43	1,7196A	MA
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1111272-1										
Cyanide, Total	ND		mg/l	0.005	--	1	05/01/18 07:33	05/01/18 13:10	121,4500CN-CE	LH
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1111459-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	05/01/18 16:30	05/01/18 22:56	121,4500NH3-BH	AT
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1111524-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	05/01/18 22:50	05/01/18 23:40	74,1664A	MM
Anions by Ion Chromatography - Westborough Lab for sample(s): 01-02 Batch: WG1111596-1										
Chloride	ND		mg/l	0.500	--	1	-	04/30/18 21:32	44,300.0	JR
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1112458-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/03/18 23:40	121,2540D	CW

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1111199-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1111225-2								
Chromium, Hexavalent	98		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1111272-2								
Cyanide, Total	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1111459-2								
Nitrogen, Ammonia	100		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1111524-2								
TPH	73		-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 Batch: WG1111596-2								
Chloride	99		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111225-4 QC Sample: L1815300-02 Client ID: EFF 4-30												
Chromium, Hexavalent	ND	0.1	0.098	98		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111272-4 QC Sample: L1815278-01 Client ID: MS Sample												
Cyanide, Total	0.010	0.2	0.190	90		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111459-4 QC Sample: L1815300-02 Client ID: EFF 4-30												
Nitrogen, Ammonia	ND	4	3.88	97		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111524-4 QC Sample: L1815300-01 Client ID: INF 4-30												
TPH	ND	20.8	14.6	70		-	-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111596-3 QC Sample: L1815116-01 Client ID: MS Sample												
Chloride	9.73	4	13.5	95		-	-		90-110	-		18

Lab Duplicate Analysis
Batch Quality Control

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111199-2 QC Sample: L1815242-01 Client ID: DUP Sample						
pH	7.6	7.5	SU	1		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111225-3 QC Sample: L1815300-01 Client ID: INF 4-30						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111272-3 QC Sample: L1815278-02 Client ID: DUP Sample						
Cyanide, Total	0.011	0.012	mg/l	10		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111459-3 QC Sample: L1815300-02 Client ID: EFF 4-30						
Nitrogen, Ammonia	ND	0.083	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111524-3 QC Sample: L1815198-01 Client ID: DUP Sample						
TPH	4.59	5.50	mg/l	18		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1111596-4 QC Sample: L1815116-01 Client ID: DUP Sample						
Chloride	9.73	9.74	mg/l	0		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1112458-2 QC Sample: L1815196-02 Client ID: DUP Sample						
Solids, Total Suspended	170	180	mg/l	6		29

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815300-01A	Vial HCl preserved	B	NA		3.6	Y	Absent		8260(14)
L1815300-01B	Vial HCl preserved	B	NA		3.6	Y	Absent		8260(14)
L1815300-01C	Vial HCl preserved	B	NA		3.6	Y	Absent		8260(14)
L1815300-01D	Plastic 250ml NaOH preserved	B	>12	>12	3.6	Y	Absent		TCN-4500(14)
L1815300-01E	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),FE-UI(180),HARDU(180),AG-2008T(180),AS-2008T(180),HG-U(28),SE-2008T(180),CR-2008T(180),PB-2008T(180),SB-2008T(180)
L1815300-01F	Plastic 500ml H2SO4 preserved	B	<2	<2	3.6	Y	Absent		NH3-4500(28)
L1815300-01G	Plastic 500ml unpreserved	B	7	7	3.6	Y	Absent		CL-300(28),HEXCR-7196(1),PH-4500(.01)
L1815300-01H	Plastic 950ml unpreserved	B	7	7	3.6	Y	Absent		TSS-2540(7)
L1815300-01I	Amber 1000ml HCl preserved	B	NA		3.6	Y	Absent		TPH-1664(28)
L1815300-01J	Amber 1000ml HCl preserved	B	NA		3.6	Y	Absent		TPH-1664(28)
L1815300-01K	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		8270TCL-SIM(7)
L1815300-01L	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		8270TCL-SIM(7)
L1815300-02A	Vial HCl preserved	A	NA		3.5	Y	Absent		8260(14)
L1815300-02B	Vial HCl preserved	A	NA		3.5	Y	Absent		8260(14)
L1815300-02C	Vial HCl preserved	A	NA		3.5	Y	Absent		8260(14)
L1815300-02D	Plastic 250ml NaOH preserved	A	>12	>12	3.5	Y	Absent		TCN-4500(14)
L1815300-02E	Plastic 250ml HNO3 preserved	A	<2	<2	3.5	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),FE-UI(180),HARDU(180),AG-2008T(180),AS-2008T(180),HG-U(28),SE-2008T(180),CR-2008T(180),PB-2008T(180),SB-2008T(180)
L1815300-02F	Plastic 500ml H2SO4 preserved	A	<2	<2	3.5	Y	Absent		NH3-4500(28)

*Values in parentheses indicate holding time in days

Project Name: FOREST HILLS
Project Number: 6130

Lab Number: L1815300
Report Date: 05/04/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1815300-02G	Plastic 500ml unpreserved	A	7	7	3.5	Y	Absent		CL-300(28),HEXCR-7196(1),PH-4500(.01)
L1815300-02H	Plastic 950ml unpreserved	A	7	7	3.5	Y	Absent		TSS-2540(7)
L1815300-02I	Amber 1000ml HCl preserved	A	NA		3.5	Y	Absent		TPH-1664(28)
L1815300-02J	Amber 1000ml HCl preserved	A	NA		3.5	Y	Absent		TPH-1664(28)
L1815300-02K	Amber 1000ml unpreserved	A	7	7	3.5	Y	Absent		8270TCL-SIM(7)
L1815300-02L	Amber 1000ml unpreserved	A	7	7	3.5	Y	Absent		8270TCL-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	FOREST HILLS	**Lab Number:**	L1815300
Project Number:	6130	**Report Date:**	05/04/18

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

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.

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

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

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

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

Data Qualifiers

A	- Spectra identified as "Aldol 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

Report Format: Data Usability Report

Project Name:	FOREST HILLS	**Lab Number:**	L1815300
Project Number:	6130	**Report Date:**	05/04/18

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

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.

Report Format: Data Usability Report

Project Name:	FOREST HILLS	**Lab Number:**	L1815300
Project Number:	6130	**Report Date:**	05/04/18

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

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

107 Alpha Analytical - In-house calculation method.

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 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, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 4/30/18

ALPHA Job #: L1815300

Client Information

Client: McPhail Associates, LLC
Address: 2269 Massachusetts Avenue
Cambridge, MA 02140
Phone: (617) 868-1420
Email: @McPhailgeo.com

Project Information

Project Name: Forest Hills
Project Location: Boston
Project #: 6130
Project Manager: P. DeChaves
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 5/7/18

Additional Project Information:

☐ Run TCLP (if triggered)

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

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 RGP Criteria

Sample "Sample ID" Nomenclature: B-100, S-1

ALPHA Lab ID (Lab Use Only)	Sample ID	Sample Depth	Sample Material	Collection Date	Collection Time	Sampler Initials	Soil Assessment Package IV (less VOC)	VOC: ☐ 8260	Total Solids	SVOC: ☐ PAH	EPH: ☐ Ranges & Targets ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	TOTAL METALS: ☐ RCRA8 ☐ PP13 ☐ MCP 14	DISSOLVED METALS: ☐ RCRA8 ☐ PP13 ☐ MCP 14	METALS: Total Sb,Be,Ni,Tl,V,Zn	☐ PCBs ☐ Pesticides	RGP Section A Inorganics	RGP Pest,			SAMPLE INFO Filtration ☐ Field ☐ Lab to do Preservation ☐ Lab to do	Sample Comments	TOTAL # BOTTLES
L1815300-01	INF 4-30		GW	4/30/18		BR												X					12
02	EFF 4-30		GW	4/30/18		BR												X					12

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

Sample Material
F=Fill S=Sand
O=Organics C=Clay
N=Natural T=Till
GM=Glaciomarine
GW=Groundwater

Preservative
A=None
B=HCl
C=HNO_3
D=H_2SO_4
E=NaOH
F=MeOH
G=$NaHSO_4$
H=$Na_2S_2O_3$
I=Ascorbic Acid
J=NH_4Cl
K=Zn Acetate
O=Other

RGP Section A Inorganics: *Ammonia, Chloride, TRC, TSS, CrVI, CrIII, Total Cyanide, Total RGP Metals*

	Container Type																					
	Preservative																					

Relinquished By:	Date/Time	Received By:	Date/Time
	4/30/18	McPhail Associates secure sample storage for laboratory pick-up	4/30/18
McPhail Associates secure sample storage for laboratory pick-up AAL	4/30/18 1810	AAL	4/30/18 1640
		Donnelle Mott	4/30/18 18:12

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

DOC ID: 25158 Rev 0 (11/28/2017)