DES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095

DRAFT 2017 ANNUAL SUMMARY REPORT
Coakley Landfill
Breakfast Hill Road
North Hampton, NH

NHDES Site #: 198712001
Project Type: CERCLA
Project Number: 431
EPA ID# NHD064424153

Prepared For:
Coakley Landfill Group
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Prepared By:
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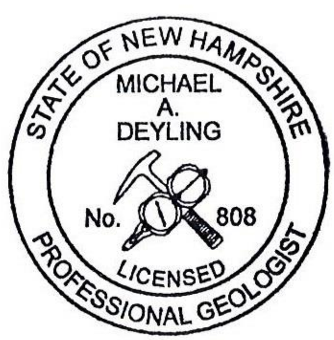

Date of Report: January 29, 2018

Groundwater Monitoring Report Cover Sheet

Site Name: **Coakley Landfill**

Town: **North Hampton**

Permit #: **GWP-198712001-N-002**

Type of Submittal (*Check all that apply*)

☒ **Periodic Summary Report (*year*):** 2017 Annual Report

☐ **Data Submittal (*month and year per Condition #7 of Permit*):**

Check each box where the answer to any of the following questions is "YES"

Sampling Results

☐ **During the most recent monitoring event, were any new compounds detected at any sampling point?**
Well/Compound:

☒ **Are there any detections of contamination in drinking water that is untreated prior to use?**
Well/Compound: R-3/339BHR/178ALR (1,4-dioxane) and 339BHR/346BHR/4ROD (manganese) – concentrations are below Ambient Groundwater Quality Standards and consistent with historical results.

☒ **Do compounds detected exceed AGQS?** 5BFL (manganese) – concentration above Ambient Groundwater Quality Standard of 0.84 mg/L (2.3 mg/L, September 2017)

☐ **Was free product detected for the first time in any monitoring point?**

☐ **Surface Water (*visible sheen*)**

☐ **Groundwater (*1/8" or greater thickness*)**

Location/Thickness:

Contaminant Trends

☐ **Do sampling results show an increasing concentration trend in any source area monitoring well?**
Well/Compound:

☐ **Do sampling results indicate an AGQS violation in any of the GMZ boundary wells?**
Well/Compound: FPC-6A - PFOA (Spring and Fall), PFOA/PFOS (Spring and Fall), Manganese (Spring and Fall), and 1,4-dioxane (Spring and Fall); FPC-6B - PFOA (Spring and Fall), PFOA/PFOS (Spring and Fall), and 1,4-dioxane (Spring and Fall); FPC-9A - PFOA (Spring and Fall), PFOA/PFOS (Spring and Fall), Arsenic (Spring and Fall), and 1,4-dioxane (Spring and Fall); FPC-11A – arsenic (Spring); FPC-3C – arsenic (Spring and Fall 2017); AE-1A – arsenic (Spring and Fall).

Recommendations

☐ **Does the report include any recommendations requiring DES action? (*Do not check this box if the only recommendation is to continue with existing permit conditions.*)**

This form is to be completed for groundwater monitoring data submittals and periodic summary reports submitted to the New Hampshire Department of Environmental Services Waste Management Division.

SENSIBLE SOLUTIONS

CES INC

DRAFT 2017 ANNUAL SUMMARY REPORT
GROUNDWATER MANAGEMENT PERMIT

Coakley Landfill
North Hampton, New Hampshire
NHDES Site #198712001

FOR

Coakley Landfill Group
1 Junkins Avenue
Portsmouth, NH 03801

January 29, 2018
JN: 10424.014

Report Prepared By:
CES, Inc.
640 Main Street
Lewiston, Maine 04240
207.795-6009

January 29, 2018

Groundwater Management Permits Coordinator
New Hampshire Department of Environmental Services
29 Hazen Drive
Concord, NH 03302-0095

Re: DRAFT 2017 Annual Summary Report
Coakley Landfill – Breakfast Hill Road, North Hampton, New Hampshire

On behalf of the Coakley Landfill Group (CLG), CES, Inc. (CES) is hereby submitting the DRAFT 2017 Annual Summary Report describing long-term environmental monitoring activities completed at the closed Coakley Landfill (the Site) in 2017. [Note that at the request of the US EPA and/or NHDES, the following changes were made to the monitoring program for 2017:

- Two rounds of monitoring for groundwater, surface water, sediment, and the L-1 seep were completed in 2017 with the first round of sampling being completed in April/May 2017 (Spring) and the second round being completed in September 2017 (Fall).
- Two rounds of residential sampling were completed in 2017. The first round of residential sampling was completed in January and incorporated an additional 15 residences (5, 9, and 15 Berry Farm Lane (BFL); 340 and 463 Breakfast Hill Road (BHR); 25 Falls Way (FW); 67 Ridgecrest Drive (RCD); 4 and 10 Red Oak Drive (ROD); and 4, 9, 10, 16, 19, and 21 Stone Meadow Way (SMW)). The second round of residential sampling was completed in September 2017 and included all of the residences sampled in January 2017 as well as four additional residences (7 and 8 Woodknoll Drive (WKD); 27 Birch Road (BR); and 178A Lafayette Road (LR)).
- Monitoring wells FPC-3A, FPC-3B, and FPC-3C were added to the monitoring program during the Spring 2017 sampling event to assess the southerly extent of impacts from the landfill. Monitoring wells GZ-109, GZ-117, and FPC-9B were added to the monitoring program during the Fall 2017 sampling event to better assess eastern extent of impacts from the landfill. Wells added to the sampling program that had been previously inactive were redeveloped prior to sampling.
- Five surface water/sediment sampling locations (SW-110/SED-110, SW-111/SED-111, SW-BB1/SED-BB1, SW-BB2/SED-BB2, and SW-LR/SED-LR) were added to the monitoring program during the Spring and Fall 2017 sampling events.
- Samples from groundwater monitoring wells were analyzed for hexavalent chromium during the Spring and Fall 2017 sampling events.
- All samples (groundwater, drinking water, surface water, sediment, and the L-1 seep) were analyzed for six per- & poly-fluorinated alkyl substances (PFAS) (EPA Method 537 Modified including PFBS, PFHpA, PFHxS, PFOA, PFNA, and PFOS) in 2017, as recommended by the agencies.

This report has been prepared to meet the requirements of the September 2017 Sampling and Analysis Plan prepared by CES, which incorporated requirements contained in the New Hampshire Department of Environmental Services (NHDES) Groundwater Management Permit (GMP, GWP-198712001-N-002) and revised Cleanup Levels established in the Fifth Explanation

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of Significant Differences dated August 4, 2015. It should be noted that at the time of the Spring sampling, the SAP had been revised and the event was conducted according to the revisions but was awaiting comments from the agencies.

Environmental monitoring results for the 2017 sampling events and trends in groundwater quality parameters are consistent with the conceptual site model, overall trends in groundwater quality noted in previous annual reports, and overall findings discussed in the October 2013 Groundwater Management Permit Renewal Application prepared by Summit Environmental Consultants (now part of CES). Compounds and locations that exceeded regulatory thresholds during the 2017 long-term monitoring events are similar to historical monitoring events. Compounds reported at concentrations equal to or exceeding regulatory thresholds or federal health advisories in one or more wells were limited to arsenic, manganese, tert-butyl alcohol, tetrahydrofuran, 1,4-dioxane, and PFAS.

Groundwater quality is stable or improving at most locations including site monitoring wells and at off site water supply wells. Notably, 1,4-dioxane concentrations reported in off-site water supply wells R-3 (0.33 ug/L and 0.34 ug/L (duplicate), January 2017 and 0.28 ug/L and 0.32 ug/L (duplicate), September 2017) and 339BHR (0.35 ug/L, January 2017 and 0.54 ug/L, September 2017) continue to be stable at concentrations below the EPA Cleanup Level (CL) and NHDES Ambient Groundwater Quality Standard (AGQS). 1,4-dioxane was also detected in off-site well 178A LR at a concentration of 0.29 ug/L, which was sampled for the first time in September 2017, well below the CL and AGQS.

Consistent with previous sampling events and historical data, 1,4-dioxane was not detected in water supply wells 415BHR and 346BHR, as well as 18 of the 19 additional water supply wells sampled in 2017.

Manganese exceeded the CL of 0.3 mg/L at 339 BHR during the January 2017 (0.42 mg/L) and September 2017 (0.34 mg/L) sampling events but was well below the AGQS (0.84 mg/L). Manganese also exceeded the EPA CL of 0.3 mg/L at 346 BHR during September 2017 (0.45 mg/L), at 4 ROD during January 2017 (0.38 mg/L) and September 2017 (0.42 mg/L), and at 5 BFL during January 2017 (0.82 mg/L) and September 2017 (2.3 mg/L). The only exceedance of the AGQS for manganese (0.84 mg/L) was at 5 BFL during September 2017 (2.3 mg/L).

Arsenic, PFOA, PFOS, and PFOA/PFOS combined were not reported above applicable EPA CL, NHDES AGQS, or federal health advisories in any residential wells sampled during 2017.

Please contact either of the undersigned with any questions or comments regarding this report.
Sincerely,

CES, Inc.

Suzanne Yerina, P.G.	Michael A. Deyling, P.G.
Project Geologist	Senior Project Geologist

SLY/MAD/jna
Attachments

cc: Peter Britz, Coakley Landfill Group
Gerardo Millan-Ramos, EPA
Andrew Hoffman via NHDES - One Stop

2017 DRAFT ANNUAL SUMMARY REPORT
GROUNDWATER MANAGEMENT PERMIT
COAKLEY LANDFILL – NORTH HAMPTON, NEW HAMPSHIRE
NHDES SITE #198712001

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2017 DRAFT ANNUAL SUMMARY REPORT
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COAKLEY LANDFILL – NORTH HAMPTON, NEW HAMPSHIRE
NHDES SITE #198712001

SECTION 1 | INTRODUCTION

On behalf of the Coakley Landfill Group (CLG), CES, Inc. (CES) is hereby submitting the DRAFT 2017 Annual Summary Report describing long-term environmental monitoring activities completed at the closed Coakley Landfill (the Site) in 2017. [Note that at the request of the US EPA and/or NHDES, the following changes were made to the monitoring program for 2017:

- Two rounds of monitoring for groundwater, surface water, sediment, and the L-1 seep were completed in 2017, with the first round of sampling being completed in April/May 2017 (Spring) and the second round being completed in September 2017 (Fall).
- Two rounds of residential sampling were completed in 2017. The first round of residential sampling was completed in January and incorporated an additional 15 residences (5, 9, and 15 Berry Farm Lane (BFL); 340 and 463 Breakfast Hill Road (BHR); 25 Falls Way (FW); 67 Ridgecrest Drive (RCD); 4 and 10 Red Oak Drive (ROD); and 4, 9, 10, 16, 19, and 21 Stone Meadow Way (SMW)). The second round of residential sampling was completed in September 2017 and included all of the residences sampled in January 2017 as well as four additional residences (7 and 8 Woodknoll Drive (WKD); 27 Birch Road (BR); and 178A Lafayette Road (LR)).
- Monitoring wells FPC-3A, FPC-3B, and FPC-3C were added to the monitoring program during the Spring 2017 sampling event to assess the southerly extent of impacts from the landfill. Monitoring wells GZ-109, GZ-117, and FPC-9B were added to the monitoring program during the Fall 2017 sampling event to better assess eastern extent of impacts from the landfill. Wells added to the sampling program that had been previously inactive were redeveloped prior to sampling.
- Five surface water/sediment sampling locations (SW-110/SED-110, SW-111/SED-111, SW-BB1/SED-BB1, SW-BB2/SED-BB2, and SW-LR/SED-LR) were added to the monitoring program during the Spring and Fall 2017 sampling events.
- Samples from groundwater monitoring wells were analyzed for hexavalent chromium during the Spring and Fall 2017 sampling events.
- All samples (groundwater, drinking water, surface water, sediment, and L-1 seep) were analyzed for six per- & poly-fluorinated alkyl substances (PFAS) (EPA Method 537 Modified including PFBS, PFHpA, PFHxS, PFOA, PFNA, and PFOS) in 2017, as recommended by the agencies.

This report has been prepared to meet the requirements of the September 2017 Sampling and Analysis Plan prepared by CES, which incorporated requirements contained in the New Hampshire Department of Environmental Services (NHDES) Groundwater Management Permit (GMP, GWP-198712001-N-002) and revised Cleanup Levels established in the Fifth Explanation of Significant Differences dated August 4, 2015. It should be noted that at the time of the Spring sampling, the SAP had been revised and the event was conducted according to the revisions but was awaiting comments from the agencies. All changes made for the Spring event were incorporated into the Final SAP dated September 2017. Therefore, any reference to the SAP in this report should be considered the September 2017 SAP.

CES performed the field sampling work and reporting, Eastern Analytical, Inc. (EAI) of Concord, New Hampshire and Vista Analytical Laboratory of El Dorado Hills, California performed the laboratory analyses, and Data Check, Inc. (Data Check) of New Durham, New Hampshire completed the Tier 1 Plus Data Validation.

1.1 Background

The closed Coakley Landfill Site consists of approximately 107 acres of land located within the Towns of Greenland and North Hampton, New Hampshire. The actual landfill area is located in the southern portion of the Site and covers approximately 27 acres of land located in North Hampton, as shown on the Site Location Map (**Figure 1**) and Site Plan (**Figure 2**). The landfill area is located approximately 700 feet to the west of Lafayette Road (US Route 1), 2,500 feet to the south of Breakfast Hill Road, and 3,800 feet to the north of North Road. The Boston and Maine Railroad rail corridor is situated along the western boundary of the Site. The landfill borders undeveloped forests and wetlands to the north and west, and commercial and residential properties to the east and south.

Environmental monitoring at the Coakley Landfill is separated into two areas, or Operable Units. Operable Unit 1 (OU-1) includes the area in the immediate vicinity of the landfill where source control actions were completed to reduce impacts to surface water and groundwater quality and to eliminate threats possibly posed by direct contact with or ingestion of contaminated media at the Site. Operable Unit 2 (OU-2) includes the area beyond the landfill where the objective is to monitor the natural attenuation of water quality impacts and minimize exposure to potential receptors caused by groundwater and surface water migrating away from the Site.

Long-term monitoring at the Coakley Landfill has been ongoing since the landfill capping was completed in 1998. The long-term monitoring of groundwater, surface water, and sediment quality following landfill capping and site closure was initially conducted in accordance with the 1999 Environmental Monitoring Plan (Aries, 1999). Over time, the scope of environmental monitoring activities has been modified, and sediment and water quality monitoring are currently performed in accordance with the agency-approved September 2017 SAP (CES, 2017)

The New Hampshire Department of Environmental Services (NHDES) issued Groundwater Management Permit (GMP) GWP-198712001-N-001 for the Coakley Landfill site for a five-year term on June 19, 2008. The GMP includes a provision for the long-term monitoring of groundwater and created a Groundwater Management Zone (GMZ) that restricts property owners from extracting groundwater for potable use. NHDES issued a GMP renewal for a five-year term on January 7, 2014. The renewed GMP ("the 2014 GMP") requires that groundwater in the GMZ be monitored at specific locations, and that the results be compared to NHDES Ambient Groundwater Quality Standards (AGQSs), some of which are different than EPA's site-specific standards (Cleanup Levels [CLs], and Primary Drinking Water Standard Maximum Contaminant Levels [MCLs]). This report considers both EPA-established CLs/MCLs and NHDES AGQSs.

Interim Cleanup Levels (ICLs) for contaminants of concern were established in the Record of Decision (ROD) for groundwater and subsequently modified in several Explanation of Significant Differences (ESDs). The Fifth ESD issued in August 2015 formally changed the ICLs to Cleanup Levels (CLs) and established a CL for 1,4-dioxane.

Drinking water Federal Health Advisories (HAs) were established on May 19, 2016 for perfluorooctanoic acid (PFOA), perfluorooctanesulfonate (PFOS), and the combination of PFOA and PFOS. NHDES filed an emergency rule to establish the HAs as AGQSs on May 31, 2016 and the rule became permanent on October 22, 2016. These analytes have not been specified as constituents of concern (COCs) for the Coakley Site but are used in this report as a means of comparison for informational purposes.

This report provides an overview of the sample collection and analyses conducted for the Spring and Fall 2017 biannual monitoring events. The information presented in this report includes: sampling locations, sample collection protocols, quality assurance/quality control (QA/QC) procedures and results, summary of the analytical results, summary of CL/AGQS/HA exceedances, discussion of historical trends, and conclusions and recommendations.

The COCs and associated NHDES-established AGQS and EPA-established CLs are summarized in the table below; status updates for the COCs are provided in **Section 5.5**. The table also includes the Federal Health Advisories for PFAS although PFAS have not been formally designated as COCs for the Site.

Constituents of Concern and Groundwater Cleanup Levels

Parameter	Chemical Abstract Service Registry Number	NHDES Ambient Groundwater Quality Standard (AGQSs)*	USEPA Record of Decision Cleanup Levels (2) (CLs)*
Benzene	71-43-2	5	5
Chlorobenzene (Monochlorobenzene)	108-90-7	100	100
Tetrachloroethene (PCE, Tetrachloroethylene)	127-18-4	5	3.5
Tetrahydrofuran (THF)	109-99-9	600	154
1,2-Dichloropropane	78-87-5	5	5
2-Butanone (MEK, Methyl Ethyl Ketone)	78-93-3	4,000	200
Diethyl phthalate (3)	84-66-2	--	2,800
Trans-1,2-dichloroethene (trans-DCE)	156-60-5	100	100
Phenol (3)	108-95-2	4,000	280
1,4-dioxane (2)	123-91-1	3	3
Tertiary butyl alcohol (TBA, tert-butyl alcohol)	75-65-0	40	--
Antimony	7440-36-0	6	6
Arsenic	7440-38-2	10	10
Beryllium	7440-41-7	4	4
Chromium	7440-47-3	100	50
Lead	7439-92-1	15	15
Manganese	7439-96-5	840	300
Nickel	7440-02-0	100	100
Vanadium	7440-62-2	--	260
Perfluorooctanoic acid (PFOA)	335-67-1	70**	-- (1)
Perfluorooctane sulfonate (PFOS)	1763-23-1	70**	-- (1)
PFOA and PFOS Combined	--	70**	-- (1)

*** units in micrograms per liter (ug/L, parts per billion)   ** units in nanograms per liter (ng/L, parts per trillion)**

(1) On May 31, 2016 EPA established a lifetime Health Advisory for PFOA, PFOS and combined PFOA/PFOS of 70 ng/L. On October 22, 2016 NHDES established these as permanent AGQSs.

(2) Interim Cleanup Levels (ICLs) for contaminants of concern were established in the ROD for groundwater and subsequently modified in several ESDs. The Fifth ESD issued in August 2015 formally changed the ICLs to Cleanup Levels (CLs) and established a CL for 1,4-dioxane.

(3) In May 1998 and April 1999, groundwater samples were submitted for analysis of SVOCs and no exceedances of applicable standards were reported; therefore, SVOCs (the requirement to analyze for diethyl phthalate and phenol) were removed from the long-term monitoring plan.

SECTION 2 | SAMPLE COLLECTION

The SAP requires sampling and analysis at 38 groundwater monitoring wells, 24 off-site water supply wells, eight surface water sampling locations, eight sediment sampling locations, and one seep sampling location. In addition, depth to groundwater level measurements are required at seven additional monitoring wells during the sampling events.

Tables summarizing the sample collection locations, sampling methods, and laboratory analyses are included in **Appendix C** (SAP **Tables 3-3 through 3-9**). Sampling locations are identified on **Figure 2**.

2.1 Groundwater Level Monitoring

Prior to the collection of groundwater samples in the Spring and Fall of 2017, CES measured depth to groundwater with an electronic water level meter capable of measuring in 0.01-foot increments. Depth to groundwater measurement field sheets and a table summarizing depth to water level measurements and corresponding water level elevation data for the monitoring event are presented in **Appendix D**. Historical groundwater elevation measurements are summarized in **Table 1**.

2.2 Well Depth Monitoring

The SAP requires measurement of well depths during the sampling event *prior* to EPA 5-Year Reviews. Well depths were measured and reported in the 2015 Annual Report and will be measured again in 2020.

2.3 Well Integrity Inspection

CES completed a well integrity inspection during the Spring and Fall 2017 sampling events and copies of the well integrity field sheets are included in **Appendix D**. CES did not identify any new issues during the well integrity inspection that require corrective actions. FPC-5A was previously identified as having well integrity issues and is scheduled to be replaced in 2018.

2.4 Field Parameter Monitoring

Field parameter water quality meters were calibrated in accordance with SOP-8 (*Calibration of YSI and Hach Field Instruments*) included in the SAP. CES measured field parameters including pH, Oxidation Reduction Potential (ORP), Temperature, Specific Conductance, and Dissolved Oxygen using a YSI-600XL water quality meter with a 250-milliliter flow-through cell and turbidity using a Hach 2100Q turbidity meter. Meters were calibrated in the office prior to using at the Site, every day prior to sampling, and a post-sampling check was completed at the end of every sampling day.

Equipment calibration logs are included in **Appendix D** for the Spring and Fall 2017 sampling events. Field parameter measurements were recorded on field sheets and final readings were incorporated into **Table 2** (OU-1 and OU-2 Groundwater Monitoring Wells), **Table 3** (Off-Site Water Supply Wells), **Table 4** (Surface Water), and **Table 6** (L-1 Seep).

2.5 Groundwater Sample Collection

CES collected 19 off-site water supply wells in January 2017, groundwater samples from 11 monitoring wells located in OU-1 and 23 monitoring wells in OU-2 during the Spring 2017 event, and 11 monitoring wells located in OU-1, 26 monitoring wells in OU-2, and 23 off-site water supply wells during the Fall 2017 event. The following deviations from the SAP groundwater sampling plan occurred during the 2017 sampling events:

- Consistent with previous monitoring events, off-site water supply well R-5 was not sampled in the spring or fall because the home is not occupied, and the water system is out of service.
- Well FPC-5A was not sampled in the spring or fall due to well integrity issues. CLG plans to replace FPC-5A in 2018.
- Monitoring wells GZ-109, GZ-117, and FPC-9B were added to the sampling program in September 2017. These wells were therefore not sampled during the spring event.
- Four residential wells (27 Birch Road, 7 and 8 Woodknoll Drive, and 178A Lafayette Road) were added to the sampling program in September 2017. These wells were therefore not sampled during the spring event.

Groundwater samples were collected in accordance with the site-specific Standard Operating Procedures (SOPs) listed in the SAP. The sampling methodology used at each sampling location is listed in **Appendix C** (SAP **Tables 3-5 through 3-7**). Methodologies used for collection of groundwater samples are summarized below:

- Thirty-one monitoring wells were sampled in the spring and 34 were sampled in the fall with a peristaltic pump using a low-flow sampling methodology (*SOP-4 Low Flow Sampling Using a Peristaltic Pump*);
- Three monitoring wells (AE-1A, AE-1B, and MW-4) were sampled in the spring and fall with a bailer (*SOP-3 Sampling with a Bailer*). *Note that this was done because the depth to water level at these wells exceeds the suction lift limit of a peristaltic pump*; and
- Nineteen off-site water supply wells were sampled in the spring and an additional 4 off-site water supply wells were sampled in the fall in accordance with *SOP-6 Drinking Water Supply Well Sampling Procedures*.

Groundwater samples were collected in accordance with site-specific SOPs, placed into laboratory-supplied sampling containers in the order specified in the SOPs, and packed in loose ice for transport under chain-of-custody protocol to EAI. EAI analyzed the samples for the list of parameters identified in **Appendix C** (SAP **Tables 3-5 through 3-7**), with the exception of PFAS, which were analyzed by Vista. Samples were sent to Vista from EAI under chain-of-custody protocol. Copies of groundwater sample collection logs are included in **Appendix D**.

In the past, overburden and bedrock groundwater samples were submitted for total metals analysis, and samples from select locations were filtered at the time of sample collection and submitted for analysis of dissolved manganese and dissolved iron. As discussed in the SAP, this practice was modified beginning in 2014 to analyze for and report dissolved (i.e., filtered) metal results for overburden groundwater to remove potential high bias in the results due to high turbidity resulting from entrained sediment in the samples and total (non-filtered) metals results for bedrock groundwater that represent conditions similar to bedrock water supply wells (open borehole non-filtered supplies). Samples collected for analysis of VOCs/1,4-dioxane/PFAS were not filtered at the time of sample collection.

Analytical laboratory results are presented in **Table 2** (OU-1 and OU-2 Groundwater Monitoring Wells) and **Table 3** (Off-Site Water Supply Wells).

2.6 Surface Water and Sediment Sample Collection

Surface water and sediment samples are collected at locations west (broad wetland complex), southwest (Little River headwaters) and northeast (Berry's Brook) of the Site. Surface water is the result of overland flow of stormwater and baseflow from discharge of groundwater to the wetlands and Brooks. Stormwater runoff (including snowmelt) on the landfill surface is routed via perimeter ditches around the landfill to two stormwater retention ponds that subsequently convey that water to areas north and northwest of the landfill via outfall pipes from the ponds. Surface water does not come into direct contact with landfill refuse. Surface water and sediment sampling locations are shown on **Figure 2**.

From April 25 through May 2, 2017 and September 13 through 19, 2017, surface water samples were collected at SW-4, SW-5, SW-103, SW-110, SW-111, SW-LR, SW-BB1, and SW-BB2 and sediment samples were collected at SED-4, SED-5, SED-110, SED-LR, and SED-BB2. Sediment samples were not collected at SED-111 and SED-LR during the spring sampling event due to insufficient sediment being available at the sample location. During the fall sampling event, sample locations for SED-111 and SED-LR were adjusted in the field so that a sample could be collected. Duplicate samples were collected at SW-5 and SED-5 for quality control purposes. Samples were collected in accordance with *SOP-5 Surface Water, Seep and Sediment Sampling Procedures*.

A Sampling Worksheet summarizing field parameter measurements, along with photographic documentation of the conditions at SW-4/SED-4, SW-5/SED-5, SW-103, SW-110/SED-110, SW-111/SED-111, SW-LR/SED-LR, SW-BB1/SED-BB1, and SW-BB2/SED-BB2 is provided in **Appendix C**.

Sediment and surface water samples were collected in accordance with site-specific SOPs, placed into laboratory-supplied containers in the order specified in the SOPs, and packed in loose ice for transport under chain-of-custody protocol to EAI. EAI analyzed the samples for the list of parameters contained in **Appendix C** (SAP, **Tables 3-8 and 3-9**), with the exception of PFAS, which were analyzed by Vista. Samples were sent to Vista from EAI under chain-of-custody protocol.

The surface water and sediment monitoring program is undertaken in part to assess the effectiveness of the cover system in eliminating erosion and transport of impacted sediments, as well as to evaluate potential toxicity to ecological receptors. A description of the conditions at the surface water and sediment sampling locations is provided below (also refer to photographs in **Appendix D**):

<u>SW-4/SED-4</u>

SW-4/SED-4 is located in a broad and flat pit-and-mound forested wetland approximately 500 feet west of the railroad and approximately 600 feet from the southwestern boundary of the landfill. The soils at this location are composed predominately of leaf litter and twigs over poorly decomposed organic soil/sediment. No evidence of channelization or the deposition of mineral sediment was observed in the vicinity of SW-4/SED-4. The leaf litter was removed, and the underlying organic soils were sampled. Samples are collected from an area of ponded water.

Surface water at this location is a combination of precipitation (including snowmelt) originating from topographically high areas to the west and contribution from easterly portion of the wetland complex east of this location during wet and high-water periods.

SW-5/SED-5

SW-5/SED-5 is located approximately 250 feet from the northwestern boundary of the landfill, roughly between seep L-1 and the railroad. The area between the landfill and railroad is wetland with very thick phragmites and grasses, more indicative of a wetlands environment. The ground in the area of SW-5/SED is covered by a thick layer of partially decomposed phragmites.

An area of ponded water along the margins of the phragmites stand is the location of SED-5/SW-5 as shown on **Figure 2**. The leaf litter was removed from the edge of the ponded water area where three to five-inches of organic material were observed above gray clay. There was no visually apparent evidence of mineral sediment deposition at this location. The samples were composed predominantly of organic materials. However, some of the underlying clay was incorporated into the samples. Samples SW-5 and SED-5 were collected from this location.

Surface water at this location is a combination of precipitation (including snowmelt) originating from topographically high areas to the southwest and contribution from areas north-northeast of this location during wet and high-water periods.

SW-103

SW-103 is located approximately 450 from the northwestern boundary of the landfill and approximately 200 feet downstream of SW-5/SED-5 in a dense phragmites stand where no evidence of channelization or the deposition of mineral sediment was observed. An area of ponded water was observed in the vicinity of SW-103 and sampled.

Surface water at this location is a combination of precipitation (including snowmelt) originating from topographically high areas to the southwest and contribution from areas north-northeast of this location during wet and high-water periods.

SW-110/SED-110

SW-110/SED-110 is located at the culvert where Berry's Brook runs under Breakfast Hill Road, approximately 3,200 feet from the northwestern boundary of the landfill and approximately 400 feet downstream from SW-BB1/SED-BB1. The soils at this location are composed predominately of leaf litter and twigs over gray clay. The surface water sample was collected from a ponded area immediately to the south of the culvert. The leaf litter was removed, and the sediment sample was collected from the underlying clay/organic material.

Surface water at this location is from the Berry's Brook watershed. This location was added to the sampling program in 2017 at the request of the agencies.

SW-111/SED-111

SW-111/SED-111 is located over a mile from the northeastern landfill boundary at the culvert where Berry's Brook crosses Lafayette Road. Surface water in this area is approximately four feet deep and a sample was collected from this area. The soils at this location consist of decomposed organic sediments. The sediment sample was collected using a stainless-steel hand auger due to the depth of water.

Surface water at this location is from the Berry's Brook watershed. This location was added to the sampling program in 2017 at the request of the agencies.

SW-LR/SED-LR

SW-LR/SED-LR is located at the culvert where the Little River crosses North Road approximately 3,600 feet from the southwestern boundary of the landfill. The area upstream of the sampling point is channelized. However, water ponds in front of the culvert. The surface water sample was collected from the ponded water in front of the culvert. The soils in this location consist of decomposed organic sediments over gray clay. The sediment sample was collected from the organic material with some clay.

Surface water at this location is from the Little River watershed. This location was added to the sampling program in 2017 at the request of the agencies.

SW-BB1/SED-BB1

SW-BB1/SED-BB1 is located in a channel to the east of the railroad easement approximately 2,700 feet from the northwestern boundary of the landfill, approximately 400 feet upstream from SW-110/SED-110, and approximately 1,000 feet downstream from SW-BB2/SED-BB2. The stream is channelized with underlying sediments consisting of leaf litter and cobbles (railroad ballast) over sandy organic sediments. The surface water sample was collected from the channel. The leaf litter and ballast were removed, and the sediment sample was collected from the underlying sand/organic sediments.

Surface water at this location is from the Berry's Brook watershed. This location was added to the sampling program in 2017 at the request of the agencies.

SW-BB2/SED-BB2

SW-BB2/SED-BB2 is located approximately 1,800 feet from the northwestern boundary of the landfill, approximately 1,200 feet downstream from SW-103, and approximately 1,000 feet upstream from SW-BB1/SED-BB1 in a broad and flat wetland approximately 20 feet east of the railroad. The soils at this location are composed predominately of leaf litter and twigs over poorly decomposed organic sediments. No evidence of channelization or the deposition of mineral sediment was observed in the vicinity of SW-BB2/SED-BB2. The surface water sample was collected from ponded water in this area. The leaf litter was removed, and the sediment sample was collected from the underlying organic soils.

Surface water at this location is from the Berry's Brook watershed. This location was added to the sampling program in 2017 at the request of the agencies.

Analytical laboratory results are presented in **Table 4** (Surface Water) and **Table 5** (Sediment).

2.7 L-1 Seep Sample Collection

On April 28, 2017 and September 21, 2017, CES collected a sample at seep sampling point L-1. This sampling point has been referred to as a "leachate seep" point in the past. It is important to note that the landfill does not have a leachate collection system, and field observations in 2017 indicate samples collected at L-1 are representative of shallow overburden groundwater discharging via seepage from an embankment to an impounded wetland area near the northwest margin of the landfill. An outfall pipe from the northwestern stormwater retention pond also discharges along the same embankment where seepage is present. Therefore, the L-1 location is referred to hereafter as a "seep". Samples were collected in accordance with *SOP-5 Surface Water, Seep and Sediment Sampling Procedures*.

A Sampling Worksheet summarizing field parameter measurements, along with photographic documentation of the conditions at L-1 is provided in **Appendix D**.

The L-1 seep sample was collected in accordance with site-specific SOPs, placed into laboratory-supplied containers in the order specified in the SOPs, and packed in loose ice for transport under chain-of-custody protocol to EAI. EAI analyzed the samples for the list of parameters contained in **Appendix C** (SAP, **Table 3-8**), with the exception of PFAS, which were analyzed by Vista. Samples were sent to Vista from EAI under chain-of-custody protocol.

Analytical laboratory results are presented in **Table 6** (L-1 Seep).

The L-1 seep sample collected on April 28, 2017 was collected during a wet period (rainfall had occurred prior to and during the sampling event). As a result, significant intermingling of running water below the stormwater outfall pipe and seepage from the embankment was occurring. The fall sample collected on September 21, 2017 was collected from a depression in the ponded water area downslope of the outfall pipe and seepage embankment, which was the only area where sufficient water for a sample was present. Water was not discharging from the stormwater pond outfall pipe during the September sampling event.

2.8 Quality Assurance / Quality Control (QA/QC) Samples

The Quality Assurance / Quality Control (QA/QC) sampling requirements are summarized in **Appendix C** (SAP **Table 4-4**). QA/QC samples collected during the 2017 sampling events are summarized below.

- Field Duplicate samples were collected during the spring and fall sampling events at three monitoring wells (MW-4, AE-3A, and GZ-105), surface water sampling location SW-5, sediment sampling location SED-5, and seep sampling location L-1. Field duplicate samples were collected at water supply well R-3 during January and September 2017, at water supply well 25 FW during the January 2017 sampling event, and 21 SMW during September 2017.
- Additional aliquots for Matrix Spike and Matrix Spike Duplicate analyses were collected at two groundwater monitoring wells (MW-8 and AE-3A), at two water supply wells (21 SMW (January 2017 only) and R-3 (Fall 2017 only)), at surface water sampling location SW-5, and seep sampling location L-1 during the spring and fall sampling events.
- Trip Blanks for volatile organic compounds (VOCs) and/or low-level 1,4-dioxane were included in each of the coolers submitted to EAI during the three 2017 sampling events.
- A Field Blank (water used for final decontamination rinse) was submitted for analysis of VOCs (8260B and/or 524.2), target analyte list (TAL) total metals, 1,4-dioxane (8260B SIM), and PFAS (Modified 537) during the January residential sampling and Spring and Fall 2017 sampling events.
- Equipment (Rinsate) Blanks were collected during the 2017 sampling events:
    - An electronic water level meter Equipment Blank was collected after well MW-8 was sampled and the water level meter was decontaminated during the spring and fall events.
    - The brass water supply well sampling apparatus Equipment Blank was collected prior to sampling water supply wells during the January and September sampling events.

- The sediment Equipment Blank was collected after all sediment samples were collected and the sediment sampling equipment (stainless steel bowl and spoon) was decontaminated during the spring and fall events.
- An Equipment Blank was collected for the single-use in-line 0.45-micron filter used to collect samples for analysis of dissolved metals at overburden monitoring wells sampled with a peristaltic pump during the spring and fall events.
- An Equipment Blank was collected for the single-use 0.45-micron filter/syringe setup used to collect samples for analysis of dissolved metals at surface water sampling locations and at overburden monitoring wells sampled using a bailer during the spring and fall events.

Results of QA/QC samples are discussed in **Section 3** and **Appendix E** of this report.

SECTION 3 | QUALITY ASSURANCE/QUALITY CONTROL RESULTS

A component of the SAP is the implementation of a QA/QC program, including both field and office elements. Field QA/QC activities were conducted to verify that sample collection, handling, and storage methods are adequate to ensure sample integrity. Office QA/QC activities focus on the data evaluation to assess whether the laboratory data are complete and representative of site conditions.

The data quality objectives and associated validation requirements are specified in the SAP and include:

- Review of field equipment calibration data and beginning and end of the day checks;
- Review of raw data and field notes for outliers or inconsistencies that may indicate a problem with the equipment or sampling procedure;
- Review of the chain of custody forms for correctness and completeness;
- Review of the chain of custody forms to ensure that each cooler contains temperature blanks and the proper trip blanks for both VOCs and 1,4-Dioxane and to ensure that the correct sample handling protocols are followed;
- Review of field sampling worksheets to ensure that all field data and parameters were collected and documented correctly and accurately according to proper protocols;
- Review of relative percent difference (RPD) for duplicate samples to assess whether the sampling methods produce reproducible results; and
- Completion of a US EPA Region I Tier 1 Plus Data Validation to evaluate the laboratory reports for completeness, assess the results of QA/QC samples analyzed with field samples, confirm that all sample tests were performed within method holding times, and the qualification of laboratory data based on EPA guidelines for data validation listed in the SAP.

Results of the QA/QC activities are presented in **Appendix E**. Analytical laboratory reports are provided in **Appendix F**.

SECTION 4 | SUMMARY OF RESULTS

4.1 Groundwater Elevations

Groundwater potentiometric surface contour maps were developed for bedrock groundwater (**Figure 3**) and overburden groundwater (**Figure 4**) using data collected on September 11, 2017. Consistent with data generated during previous monitoring events, the following observations are made from the overburden and bedrock groundwater potentiometric surface maps:

- Bedrock and overburden groundwater elevations in proximity to the landfill area support predominantly westward flow away from the landfill area toward a prominent north-northeast/south-southwest trending valley at the headwaters of Little River (to the south) and Berry's Brook (to the north).
- Water level elevations in overburden wells along the eastern boundary of the landfill (MW-4, OP-5, FPC-9A, FPC-11A, AE-1A, and GZ-117) in conjunction with a watershed boundary (topographic high) suggest an east/west shallow overburden flow divide is likely present proximal to the eastern boundary of the landfill. A similar divide is interpreted to exist in bedrock, although bedrock groundwater elevation data changes are subtle and support a primarily westward flow.

4.2 Groundwater Analytical Results

Analytical results for groundwater monitoring wells sampled during the Spring and Fall 2017 sampling events are provided in **Table 2** (OU-1 and OU-2 Groundwater Monitoring Wells). Analytical results for off-site water supply wells sampled in January 2017 and Fall 2017 are provided in **Table 3** (Off-site Water Supply Wells).

A historical summary of analytical results for contaminants of concern at groundwater monitoring points (monitoring wells and water supply wells) is provided in **Table 9**.

In general, parameter concentrations reported for samples collected during the Spring and Fall 2017 sampling event are similar to previous results.

The residential samples collected in January 2017 used the standard laboratory reporting limit of 8 nanograms per liter (ng/L) for PFAS while all other samples collected in 2017 utilized lower reporting limits specified by the regulatory agencies as presented in the SAP. As a result of the lower reporting limits for PFAS, several detections were reported at locations that were reported as Not Detected (ND) at the previous reporting limit of 8 ng/L. It is likely that PFAS would have been detected in previous sampling events at these locations if the laboratory had run modified methods with lower reporting limits. Note that none of the detections exceeded 8 ng/L where they were previously reported as ND. No other new parameters were detected in Site groundwater. Refer to **Section 5.2** for a discussion of groundwater regulatory threshold exceedances.

Groundwater samples were analyzed for hexavalent chromium during the Spring and Fall 2017 sampling events and was not detected in any sample during either event. It should be noted that hexavalent chromium results for five wells (FPC-6A, FPC-6B, AE-3A, FPC-8A, and FPC-8B) was rejected during that fall event due to low MS/MSD recoveries. Hexavalent chromium was not reported at FPC-6A, FPC-6B, AE-3A, FPC-8A, and FPC-8B above the reporting limit during the Spring 2017 sampling event. Hexavalent chromium does not have an EPA CL or NHDES AGQS.

4.3 Surface Water Analytical Results

Surface water samples were collected at SW-4, SW-5, SW-103, SW-110, SW-111, SW-LR, SW-BB1, and SW-BB2 during the Spring and Fall 2017 sampling events. Analytical results for the eight surface water samples are summarized in **Table 4**.

Results for surface water in 2017 reported no exceedances of the NHDES Surface Water Standards for acute exposure scenarios while chronic standard exceedances were limited to selenium (SW-5 and SW-5 dup, fall only), copper (SW-103, spring only; SW-BB2, fall only), iron (SW-111 and SW-BB1, fall only), and zinc (SW-BB-2, fall only). Surface water sampling locations SW-4 and SW-LR did not report any exceedances of the surface water standards for acute or chronic exposures in 2017.

PFOS at SW-5 (Fall 2017), SW-5 Dup (Spring and Fall 2017), and SW-103 (Fall 2017) slightly exceeded the EPA Site-specific surface water Screening Level for Child Recreator (exposure factor equal to 120 days) of 760 ng/L. SW-5 and SW-103 are located along the northwestern edge of the landfill to the east of the former railroad.

Refer to **Section 5.6** for a discussion of surface water regulatory threshold exceedances.

4.4 L-1 Seep Analytical Results

A seep sample was collected at location L-1 on April 28, 2017 and September 21, 2017. Analytical results for the L-1 seep are summarized in **Table 6**. Results for the sample indicate that water quality meets NHDES Surface Water Standards for acute and chronic exposure scenarios, with the exception of iron, which exceeded the chronic standard of 1 mg/L during the spring and fall sampling events. Iron has historically exceeded the chronic standard. Ammonia-N has historically exceeded the chronic and/or acute standards at L-1. However, concentrations were below both standards for the spring and fall sampling events. Results from the spring sampling event detected PFOS at concentrations above the EPA Site-specific surface water Screening Level for Child Recreator (exposure factor equal to 120 days) of 760 ng/L (1,930D ng/L, original sample; 1,560J ng/L, duplicate sample).

The L-1 seep sample collected on April 28, 2017 was collected during a wet period (rainfall had occurred prior to and during the sampling event). As a result, significant intermingling of running water below the stormwater outfall pipe and seepage from the embankment was occurring. The fall sample collected on September 21, 2017 was collected from a depression in the ponded water area downslope of the outfall pipe and seepage embankment, which was the only area where sufficient water for a sample was present. Water was not discharging from the stormwater pond outfall pipe during the September sampling event.

Refer to **Section 5.7** for a discussion of L-1 seep regulatory threshold exceedances.

4.5 Sediment Analytical Results

Sediment samples were collected at SED-4, SED-5, SED-110, SED-LR, and SED-BB2 during the Spring and Fall 2017 sampling events. Two additional sediment samples (SED-111 and SED-BB1) were collected during the Fall 2017 sampling event. A duplicate sample was also collected at SED-5 during both sampling events. Analytical results for sediment samples and the National Oceanic and Atmospheric Administration Screening Quick Reference Tables (NOAA SQuiRT Tables) Threshold Effect Concentrations (TEC) for freshwater sediment applicable to this Site are summarized in **Table 5**. Results for samples collected 2017, indicate the following TEC exceedances:

- SED-4 exceeded the TEC for cadmium and zinc (Fall 2017) and lead and mercury (Spring and Fall 2017);
- SED-5/SED-5 dup exceeded the TEC for mercury (Spring 2017); chromium and nickel (Fall 2017); and arsenic, copper, and lead (Spring and Fall 2017);
- SED-110 exceeded the TEC for mercury (Spring 2017) and lead (Fall 2017);
- SED-111 exceeded the TEC for lead (Fall 2017);
- SED-LR exceeded the TEC for arsenic and nickel (fall 2017);
- SED-BB1 exceeded the TEC for nickel (Fall 2017); and
- SED-BB2 exceeded the TEC for arsenic (Fall 2017).

Refer to **Section 5.8** for a discussion of sediment regulatory threshold exceedances.

SECTION 5 | ANNUAL DATA SUMMARY AND DISCUSSION

The SAP requires water quality sampling data be evaluated to identify spatial and temporal trends and the status of remedial objectives. The following evaluations were completed to assess these objectives.

- Preparation of groundwater potentiometric surface contour maps for overburden and bedrock groundwater.
- Preparation of time series plots for constituents of concern at wells where concentrations are currently or have recently exceeded CLs or AGQSs.
- Trend analysis for constituents of concern at wells where concentrations are currently or have recently exceeded CLs or AGQSs.
- Preparation of figures showing the vertical and lateral distributions of constituents of concern present at the Site that exceed CLs, AGQSs, or HAs.

5.1 Groundwater Potentiometric Surfaces

As noted earlier in this report, groundwater flow in overburden and bedrock is primarily westward from the landfill based on groundwater elevation data. Interpretation of groundwater flow patterns in the Remedial Investigation (RI) identified a groundwater flow divide that is coincident with a topographic high (and watershed boundary) located just east of the landfill and oriented in a north – south direction. Prior to regrading of landfill refuse and installation of the cover system, landfill refuse was located proximal to the eastern property boundary on or near the topographic high point. During this time, it is likely that a component of infiltrating water and/or stormwater runoff resulted in groundwater impacts that migrated eastward away from the groundwater divide. Water quality data in monitoring wells east of the landfill indicated landfill related impacts were present, albeit at relatively minor concentrations compared to water quality data from monitoring wells located west of the landfill.

During construction of the cover system, landfill refuse was consolidated into the current landfill footprint. Refuse located near the topographic high was pulled westward into the current landfill footprint and perimeter ditches were installed to convey stormwater runoff to stormwater basins (ponds) located west of the topographic high. As a result of these construction activities and based on groundwater elevation data collected since that time, groundwater under the landfill is interpreted now to flow in a westerly direction.

Nonetheless, the CLG was requested by EPA and NHDES in May 2017 to investigate whether monitoring wells installed during the RI and located east of the landfill were still present and able to be sampled. A review of RI Site plans and a visual reconnaissance of the area identified two wells, GZ-109 and GZ-117, to the east of the landfill and Route 1 that could be utilized to assess conditions east of the landfill. Depth to water and subsequent elevation data from the overburden well, GZ-117, shows that an easterly component of flow is present to the east of Route 1. Data from the bedrock well GZ-109 is less distinct (groundwater elevations similar to wells west of Lafayette Road) and suggests that easterly flow in bedrock is subtle at best. A discussion of water quality in wells GZ-109 and GZ-117 is included in **Section 5.2**.

Overburden and bedrock groundwater flowing beyond the western margin of the landfill is affected by a flow divide located in a broad topographic saddle to the west of the landfill, which results in the bifurcation of groundwater flow into two distinct flow pathways along a prominent north-northeast/south-southwest trending valley. The north-northeastern flow pathway is situated within the watershed of Berry's Brook, which drains to the northeast across Breakfast Hill Road. The south-southwestern flow pathway is situated within the watershed of the Little River, which drains to the south-southwest across North Road.

In general, groundwater elevations, flow direction, and hydraulic gradients determined using water level data from September 11, 2017, are consistent with those measured in previous annual sampling events.

5.2 Groundwater Quality Regulatory Threshold Exceedances

5.2.1 Monitoring Wells

Analytical results from overburden and bedrock monitoring wells were tabulated and compared to EPA-established Cleanup Levels (CLs), NHDES-established Ambient Groundwater Quality Standards (AGQSs) and Federal Health Advisories (HAs). CL and AGQS exceedances reported in groundwater samples collected during the 2017 sampling events are similar to previous results. The number of CL/AGQS exceedances in OU-1 and OU-2 are summarized in the right most columns on **Table 2** and discussed herein.

Parameters reported at concentrations exceeding CLs or AGQSs during the 2017 events are summarized below.

<u>Total/Dissolved Arsenic</u>
Groundwater samples from 37 monitoring wells were submitted for analysis of total or dissolved arsenic.

The CL and AGQS for arsenic is 0.01 milligrams per liter (mg/L). CL/AGQS exceedances occurred at the following eighteen (18) wells:

<u>OU-1:</u> MW-4, MW-5S, MW-11, OP-2, OP-5, and BP-4 (Spring and Fall 2017); MW-5D, MW-9, and MW-10 (Fall 2017),

<u>OU-2:</u> AE-1A, AE-2A, AE-3A, AE-3B, FPC-3C, FPC-9A, and GZ-105 (Spring and Fall 2017); FPC-11A (Spring 2017 only); and AE-2B (Fall 2017 only).

Of the 37 groundwater wells sampled in 2017, 19 did not report arsenic above the CL/AQGS. Well FPC-11A exceeded the CL/AGQS for the first time during the spring of 2017. However, concentrations of arsenic at FPC-11A fell below the CL/AGQS during the fall 2017 sampling event. There were no other first-time exceedances for arsenic in 2017. The highest concentrations of arsenic were reported in overburden wells located along the northern and western edges of the landfill. Concentrations of arsenic were generally lower in bedrock wells paired with an overburden well and decreased with distance away from the landfill. This is consistent with historical data.

Total/Dissolved Manganese

Groundwater samples from 37 monitoring wells were submitted for analysis of total or dissolved manganese.

The CL for manganese is 0.3 mg/L. CL exceedances occurred at the following 23 wells:

OU-1: MW-4, MW-5D, MW-5S, MW-6, MW-8, MW-11, OP-2, OP-5, and BP-4 (Spring and Fall 2017); MW-9 and MW-10 (Fall 2017 only),

OU-2: AE-1A, AE-1B, AE-2A, AE-2B, AE-3A, AE-3B, FPC-6A, FPC-6B, FPC-11A, and GZ-105 (Spring and Fall 2017); AE-4B and FPC-11B (Fall 2017 only),

The AGQS for manganese is 0.84 mg/L. AGQS exceedances occurred at the following 15 wells:

OU-1: MW-4, MW-5S, MW-8, OP-2, OP-5, and BP-4 (Spring and Fall 2017); MW-5D, MW-6, MW-9, and MW-10 (Fall 2017 only).

OU-2: AE-2A (Spring 2017 only), AE-2B, AE-3A, AE-3B, and FPC-6A (Spring and Fall 2017).

Of the 37 groundwater wells sampled in 2017, 14 did not report manganese above the CL while 22 of the 37 wells sampled did not report manganese above the AGQS. Well AE-2A was reported above the AGQS for manganese during Spring 2017 sampling event for the first time since August 2002. However, concentrations of manganese at AE-2A fell below the AGQS during the Fall 2017 sampling event. Concentrations of manganese at AE-2A exceeded the CL during both sampling events in 2017. There were no first-time exceedances of the CL or AGQS for manganese in 2017. The highest concentrations of manganese were reported in overburden wells located along the northwestern edge of the landfill and in bedrock wells located to the south and north of the landfill. Concentrations of manganese were generally lower in deep bedrock wells as compared to shallow bedrock and overburden wells. This is consistent with historical data.

1,4-Dioxane

Groundwater samples from a subset of monitoring wells in OU-1 and OU-2 were submitted for analysis of 1,4-dioxane using a low-level detection limit methodology, including nine monitoring wells in OU-1 and 13 monitoring wells in OU-2. The NHDES AGQS and EPA CL for 1,4-dioxane is 3 ug/L.

AGQS exceedances occurred at the following 17 wells:

> <u>OU-1:</u> MW-4, MW-5D, MW-5S, MW-8, MW-11, and BP-4 (Spring and Fall 2017); MW-9 and MW-10 (Fall 2017 only),
>
> <u>OU-2:</u> AE-2B, AE-3A, AE-3B, FPC-5B, FPC-6A, FPC-6B, FPC-9A, and GZ-105 (Spring and Fall 2017); AE-2A (Spring only).

Of the 37 groundwater wells sampled in 2017, 20 did not report 1,4-dioxane above the CL/AGQS. Monitoring wells MW-10 and FPC-9A were sampled for 1,4-dioxane for the first time in 2017 and both reported concentrations above the CL/AGQS during one or both sampling events. There were no other first-time exceedances of the CL/AGQS for 1,4-dioxane in 2017. The highest concentrations of 1,4-dioxane were reported in bedrock wells located along the western and southern edge of the landfill. Concentrations of 1,4-dioxane were generally higher in bedrock wells as compared to overburden wells in the vicinity of the landfill. Concentrations were generally lower in bedrock wells as compared to overburden wells as distance away from the landfill increased. This is consistent with historical data.

<u>Tertiary-butyl alcohol (TBA)</u>
Groundwater samples from a subset of monitoring wells in OU-1 and OU-2 were submitted for analysis VOCs (EPA Method 8260B NHDES Full List), including five monitoring wells in OU-1 and 18 monitoring wells in OU-2. The EPA has not established an CL for TBA. The NHDES AGQS for TBA is 40 ug/L.

The AGQS for TBA was exceeded at two bedrock wells in OU-1 (MW-5D, Fall 2017, and MW-8, Spring 2017), which is consistent with historical data. TBA was reported at the AGQS at MW-5D in the Spring of 2017 and at MW-8 in the Fall of 2017. TBA was reported as Not Detected (ND) above laboratory detection limits at the remaining monitoring wells sampled in OU-1 and OU-2.

<u>Tetrahydrofuran</u>
Groundwater samples from a subset of monitoring wells in OU-1 and OU-2 were submitted for analysis VOCs (EPA Method 8260B NHDES Full List), including 5 monitoring wells in OU-1 and 18 monitoring wells in OU-2. The NHDES AGQS for tetrahydrofuran is 600 ug/L and the EPA CL is 154 ug/L.

The EPA CL and AGQS were not exceeded in OU-1 and OU-2 wells during 2017. Historically, the EPA CL has been exceeded at MW-8. However, concentrations for tetrahydrofuran at MW-8 were reported at 110 ug/L (Spring 2017) and 120 ug/L (Fall 2017).

Reported concentrations are generally consistent with past events.

<u>PFAS</u>
PFAS has not been established as a COC for the Coakley Site. The EPA and NHDES identified PFAS as an emerging environmental contaminant in 2016 and requested the CLG investigate the presence (or absence) and concentrations of PFCs in groundwater. In 2016, sampling for PFAS was initially undertaken at a select group of monitoring wells within OU-1. Based on the results of the initial investigation, sampling was expanded to include monitoring wells in OU-2.

With only three sets of results, there is insufficient data to identify clear trends. However, for comparative purposes, data from 2016 is included with the discussion of 2017 data. Parameters reported at concentrations exceeding HAs during the 2017 events are summarized below.

PFOA
Groundwater samples from 37 monitoring wells were submitted for analysis of PFOA.

The HA for PFOA is 70 nanograms per liter (ng/L). HA exceedances occurred at the following seventeen (17) wells:

OU-1: MW-4, MW-5D, MW-5S, MW-8, MW-9, MW-10, and MW-11 (Spring and Fall 2017); OP-2 (Spring 2017 only),

OU-2: AE-2A, AE-2B, AE-3A, AE-3B, FPC-5B, FPC-6A, FPC-6B, FPC-9A, and GZ-105 (Spring and Fall 2017).

The number of HA exceedances for PFOA in 2017 are consistent with 2016 results, with the exception of MW-5D, which had not detected a concentration above the HA in 2016. Concentrations of PFOA in MW-5D during the fall event are only slightly higher than those reported in 2016 (82 vs 62 ng/l) while the concentration of PFOA during the spring event was 119 ng/L. Two wells sampled for the first time for PFAS in 2017 reported exceedances of the HA for PFOA (MW-10, Spring and Fall 2017 and OP-2, Spring 2017). There were no other first-time exceedances of PFOA in 2017.

Of the 37 groundwater wells sampled in 2017, 20 did not report PFOA above the HA. The highest concentrations of PFOA were reported in shallow bedrock wells located along the southwestern edge of the landfill and in overburden wells located along the northwestern and southeastern corners of the landfill. There is no clear distinction between concentrations of PFOA in bedrock and overburden wells. However, concentrations were generally lower in wells as distance away from the landfill increased.

PFOS
Groundwater samples from 37 monitoring wells were submitted for analysis of PFOS.

The HA for PFOS is 70 ng/L. HA exceedances occurred at the following 10 wells:

OU-1: MW-5S, MW-8, MW-9, MW-10, and MW-11 (Spring and Fall 2017),

OU-2: AE-2A, AE-2B, AE-3A, and GZ-105 (Spring and Fall 2017); AE-3B (Spring 2017 only).

The number of HA exceedances for PFOS in 2017 are consistent with 2016, with the exception of AE-3B, which was reported slightly above the HA during the Spring 2017 event (91 ng/l) and had been reported at a concentration of 62.8 ng/L (slightly below the HA) in 2016. PFOS results in the sample from AE-3B during the fall event (64 ng/l) did not exceed the HA and were consistent with the 2016 results. One well, sampled for the first time for PFAS in 2017 reported exceedances of the HA for PFOS (MW-10, Spring and Fall 2017). There were no other first-time exceedances of PFOS during 2017.

Of the 37 groundwater wells sampled in 2017, 27 did not report PFOS above the HA. The highest concentrations of PFOS were reported in shallow bedrock and overburden wells located along the western edge of the landfill. There is no clear distinction between concentrations of PFOS in bedrock and overburden wells. However, concentrations were generally lower in wells as distance away from the landfill increased. Concentrations of PFOS were generally lower than PFOS in bedrock and overburden wells.

<u>PFOA/PFOS Combined</u>

Groundwater samples from 37 monitoring wells were submitted for analysis of PFOA/PFOS combined.

The HA for PFOA/PFOS combined is 70 nanograms per liter (ng/L). HA exceedances occurred at the following eighteen (18) wells:

<u>OU-1:</u> MW-4, MW-5D, MW-5S, MW-8, MW-9, MW-10, and MW-11 (Spring and Fall 2017); OP-2 and BP-4 (Spring 2017 only),

<u>OU-2:</u> AE-2A, AE-2B, AE-3A, AE-3B, FPC-5B, FPC-6A, FPC-6B, FPC-9A, and GZ-105 (Spring and Fall 2017).

The number of HA exceedances for the combination of PFOA/PFOS in 2017 is consistent with 2016. Two wells sampled for the first time for PFAS in 2017 reported exceedances of the HA for PFOA/PFOS combined (MW-10, Spring and Fall 2017 and OP-2, Spring 2017). There were no other first-time exceedances of PFOA/PFOS during 2017

Of the 37 groundwater wells sampled in 2017, 19 did not report the combination of PFOA/PFOS above the HA. Concentrations of the combination of PFOA/PFOS were consistent with the concentrations of PFOA whereas the highest were reported in shallow bedrock wells located along the southwestern edge of the landfill and in overburden wells located along the northwestern and southeastern corners of the landfill. There is no clear distinction between concentrations of PFOA/PFOS in bedrock and overburden wells. However, concentrations were generally lower in wells as distance away from the landfill increased.

In general, concentrations of COCs and PFAS are highest in OU-1 wells near the landfill boundary and tend to decrease with distance from the landfill. With the exception of manganese in four residential wells, concentrations of COCs and PFAS do not exceed CLs or AGQS outside of the GMZ.

5.2.2 Off-Site Water Supply Wells

Analytical results for VOCs (EPA Method 524 NHDES Full List), 1,4-dioxane using a low-level detection limit methodology (EPA Method 8260B SIM), arsenic and manganese (EPA Method 200.8), and PFAS (EPA 537 Modified) for the 23 off-site water supply wells sampled were tabulated and compared to EPA-established CLs, NHDES-established AGQSs, and EPA HAs. Results are summarized in **Table 3**.

Arsenic, VOCs, PFOA, PFOS, and PFOA/PFOS combined were not detected above applicable EPA CL, NHDES AGQS, or federal health advisories in any residential wells sampled during 2017.

Consistent with previous sampling events and historical data, 1,4-dioxane was not detected in water supply wells 415BHR and 346BHR as well as 18 of the 19 additional water supply wells sampled in 2017.

1,4-dioxane concentrations reported in off-site water supply well R-3 ranged from 0.28 ug/L (September 2017 original sample) to 0.34 ug/L (January 2017 duplicate sample) and from 0.35 ug/L (January 2017) to 0.54 ug/L (September 2017) in well 339 BHR. 1,4-dioxane concentrations continue to be stable below the EPA Cleanup Level and NHDES AGQS in these wells and are evidence of plume stability in this area. 1,4-dioxane was also reported in off-site well 178A LR at a concentration of 0.29 ug/L (sampled for the first time in September 2017), well below the EPA Cleanup Level and NHDES AGQS.

Manganese exceeded the EPA CL of 0.3 ug/L at 339BHR during the January 2017 (0.42 mg/L) and September 2017 (0.34 mg/L) sampling events but was well below the AGQS (0.84 mg/L). Manganese also exceeded the EPA CL of 0.3 mg/L at 346 BHR during September 2017 (0.45 mg/L), at 4ROD during January 2017 (0.38 mg/L) and September 2017 (0.42 mg/L), and at 5 BFL during January 2017 (0.82 mg/L) and September 2017 (2.3 mg/L). The only exceedance of the NHDES AGQS for manganese (0.84 mg/L) in off-site water supply wells in 2017 was at 5 BFL during September 2017.

The residential samples collected in January 2017 used the standard laboratory reporting limit of 8 ng/L for PFAS, while all other samples collected in 2017 utilized lower reporting limits specified by the regulatory agencies as presented in the SAP. As a result of the lower reporting limits for PFAS, several detections were reported at locations that were reported as Not Detected (ND) at the previous reporting limit of 8 ng/L. It is likely that PFAS would have been detected in previous sampling events at these locations if the laboratory had run modified methods with lower reporting limits. Note that none of the detections exceeded 8 ng/L where they were previously reported as ND. No other new parameters were detected in Site groundwater. Refer to **Section 5.2.2** for a discussion of groundwater regulatory threshold exceedances.

Although very low concentrations of PFOA, PFOS, and/or PFOA/PFOA combined were reported in one or more residences in 2017, there were no exceedances of the HA for PFOA, PFOS, or PFOA/PFOS combined in any of the residential wells sampled in 2017. The highest combined PFOA/PFOA concentration in any residential supply well located in Stone Meadow Way, Red Oak Drive, Berry Farm Lane, and Falls Way was less than 8 ng/l, with the exception of 339 BHR (Golf Course) at 17.8 and 13.5 ng/l in January 2017 and September 2017, respectively, which is well below the applicable HA. Although there are a significant number of individual PFAS, only PFOA, PFOS, and PFOA/PFOS combined have HAs/AQGSs. For 2017, samples were analyzed for a list of PFAS recommended by the agencies which included six different individual compounds. Of the four-remaining individual PFAS compounds analyzed in 2017, most were reported as not detected above the reporting limit. However, if a concentration was detected it was generally at low or “estimated” concentration and are reported on applicable summary tables in this report.

Note that combined PFOA/PFOS concentrations at four residential wells added to the sampling program in September 2017 were less than 10 ng/l. Three of these wells are located south of North Road and are not considered to be in a groundwater flow path from the landfill.

5.3 Parameter Isoconcentration Maps and Cross Sections

Isoconcentration maps were prepared to show the lateral and vertical distributions of arsenic, manganese, 1,4-dioxane, PFOA, PFOS, and the combination of PFOA/PFOS concentrations in overburden and bedrock groundwater. Isoconcentration maps for benzene and tetrahydrofuran were not prepared because no CL/AGQSs exceedances were reported in 2017. Isoconcentration maps for TBA were not prepared because TBA was only detected in two wells located in close proximity to one another in OU-1.

The interpreted lateral distributions of arsenic, manganese, 1,4-dioxane, PFOA, PFOS, and combination of PFOA/PFOS in overburden and bedrock groundwater are shown on **Figures 5 to 16**. The interpreted vertical distributions of arsenic, manganese, 1,4-dioxane, PFOA, PFOS, and combination of PFOA/PFOS in groundwater are shown on **Figures 17 to 28**. General conclusions based on a review of **Figures 5 through 28** are discussed below.

- The addition of monitoring wells GZ-109 and GZ-117 to the east and the FPC-3 series monitoring wells to the southwest have provided a better understanding of the extent of impacts south and east of the landfill. Data from these sampling locations demonstrate that water quality impacts above applicable regulatory standards are contained within the GMZ.
- In general, arsenic, manganese, 1,4-dioxane, PFOA, PFOS, and the combination of PFOA/PFOS concentrations in bedrock and overburden groundwater decrease with distance from the landfill area and appear to migrate toward Berry's Brook and Little River consistent with the Site conceptual model.
- The horizontal and vertical distributions of 1,4-dioxane, arsenic, manganese, PFOA, PFOS, and the combination of PFOA/PFOS concentrations in bedrock and overburden groundwater are consistent with groundwater flow directions established using groundwater potentiometric surface elevations at wells and well couplets.
- Arsenic was not detected at concentrations above regulatory standards in residential wells north of the GMZ during 2017, suggesting that arsenic concentrations above the regulatory standard are contained within the GMZ.
- Results for arsenic, manganese, and 1,4-dioxane for 2017 are consistent with historical data, although a moderate decline/stabilization in arsenic concentrations is noted at wells FPC-6A and B, the most northerly monitoring location within the GMZ, and in 1,4-dioxane at MW-8, MW-11, and AE-2A, located west of the landfill.
- Results from the FPC-3 series monitoring wells and FPC-4B indicate that the extent of groundwater impacts to the south of the Site do not extend beyond these wells in overburden and shallow bedrock. Concentrations reported above the applicable CL/AGQS/HA appear to extend approximately 1,000 feet south of the landfill.
- Based on the analytical results from monitoring well FPC-4B and the AE-4 series monitoring wells in conjunction with watershed boundaries, geologic structure and groundwater elevation data, we interpret that groundwater impacts above CLs, AGQS and/or HAz do not extend beyond the western boundary of the GMZ.
- Analytical results from the FPC-6 series monitoring wells have shown limited impacts with manganese being reported above the CL/AGQS and PFAS being reported above the applicable HAs in 2017.

- Water quality data from the two eastern most monitoring wells GZ-109 and GZ-117 have confirmed that groundwater quality impacts are limited to a small area east of the landfill and do not extend beyond the eastern boundary of the GMZ. These data along with groundwater elevation data also support the interpretation that a significant groundwater flow path from the landfill to the east is not present.
- The extent of water quality impacts above regulatory standards is less well defined to the north of the Site along Berry's Brook due to the lack of downgradient monitoring wells near the northern boundary of the GMZ. The CLG plans to install two well couplets in this area to further define the extent of water quality impacts in this area. However, as discussed in **Section 5.2.2**, residential well sampling completed at locations north of the GMZ boundary did not detect any COC concentrations above the CLs, AGQSs or HAs with the exception of manganese, a naturally occurring COC which was detected in one well above the AGQS and 4 wells above the EPA CL.

5.4 Parameter Trend Analysis for Groundwater

Mann-Kendall statistical trend analysis tests were completed for arsenic and manganese at groundwater monitoring points where regulatory threshold exceedances were reported in the last five years, and at wells that were compliant with regulatory thresholds in the last five years, if arsenic or manganese exceedances were reported in the last five years in the associated well couplet. Statistical trend analysis tests were completed for TBA, 1,4-dioxane, and benzene at groundwater monitoring points where it has been detected in the last 14 years. There is insufficient data to perform statistical trend analysis for PFAS.

The Mann-Kendall test is a statistical method for assessing the probability that an increasing trend exists in a given data set. The test evaluates each data point relative to previous data points to calculate the number of positive and negative differences between constituent concentrations. Based on the number of data points and the sum of the negative and positive differences between adjacent data points, the probability that a statistically significant trend exists is calculated at the confidence limit selected.

Mann-Kendall trend analysis tests were completed using data collected from 2004 to 2017 when five or more data points and two or more detections above the laboratory practical quantitative limit (PQL) were available. For non-detect results, the detection limit was used to complete the trend test. For the majority of the tests, 10 or more data points were available for this 14-year period (2004-2017). However, fewer than 10 data points are available for TBA and 1,4-dioxane because analysis for these parameters did not begin until 2007 and 2009, respectively. A confidence limit of 95 percent was selected to identify statistically significant trends (i.e., there is a 95 percent probability that the trend calculated by the test exists). The Mann-Kendall trend tests were completed with ChemStat™ Starpoint Software, Advanced Statistical Analysis of Ground Water, Surface Water, Soil, or Air Quality Monitoring Data.

Time-series trend plots (attached) for each of the data sets were prepared and visually reviewed to verify that the last five years of data in each data set are consistent with statistical trend analysis results and in the context of the complete data set.

The results of CES' statistical analysis and qualitative/visual review of the time series charts for arsenic, manganese, benzene, TBA and 1,4-dioxane are provided on **Table 8**. Conclusions drawn by CES based on statistical trend analysis and a visual review of time-series plots are summarized below.

<u>1,4-Dioxane</u>

- Mann-Kendall tests for 1,4-dioxane at monitoring wells indicate statistically significant evidence of a decreasing trend at five out of thirty-seven monitoring wells (bedrock wells MW-5S, MW-8, MW-11, and FPC-8B and overburden monitoring well AE-2A).
- A review of time series plots indicated that a visually apparent decreasing trend in 1,4-dioxane concentrations is present at four additional wells (deep bedrock wells BP-4, AE-2B, and AE-3B and overburden well AE-3A).
- 1,4-dioxane concentrations are stable below the CL and AGQS at the two off-site water supply wells (R-3 and 339BHR) where it has been detected in previous sampling events.
- Increasing trends were not identified in any monitoring wells sampled in 2017.

<u>Benzene</u>

- Benzene concentrations at the seven monitoring wells where it was detected in 2017 are stable or decreasing (i.e., MW-5D, MW-5S, MW-8, MW-11, AE-3A, AE-3B, and GZ-105). A statistically significant increasing trend was not reported in any well for benzene.

<u>Tertiary-butyl alcohol</u>

- TBA concentrations at the two wells where it has been detected (MW-5D and MW-8) are stable. At MW-5D, no statistically significant trend is reported, and review of time series plots indicates that concentrations are stable. At MW-8, a statistically significant decreasing trend was reported, but review of time series plots indicates that concentrations are stable, which is consistent with historical data.

<u>Arsenic & Manganese (Redox Metals)</u>
Arsenic and manganese are naturally occurring elements in soil and bedrock in much of New Hampshire and New England. The solubility of these elements are affected by the local geochemical environment, particularly, the strength of oxidizing or reducing conditions. In general, more reducing conditions (lower dissolved oxygen, lower ph, lower alkalinity) result in greater solubility of both manganese and arsenic. Reducing conditions can occur naturally in areas such as wetlands, bogs, or other area where natural degradation of organic materials is occurring or where limited exchange of fresh water is occurring, and oxygen becomes depleted. Reducing conditions can also occur due to anthroipogenic (man-made) causes such as landfills, composting, mulching, wastewater treatment, and related activity. As a result, the specific source or cause of arsenic and manganese at specific locations may be affected by one or more of the factors discussed above. A review of historic data and concentrations detected in 2017 indicate the following.

- No trend or a decreasing trend in arsenic is apparent at seventeen groundwater monitoring locations, including: bedrock wells MW-5D, MW-5S, MW-8, MW-11, FPC-6B, AE-1B, AE-2B, AE-3B, and GZ-105; overburden (outwash) wells MW-4, MW-9, MW-10, OP-2, and OP-5; and overburden (till) wells AE-1A, AE-2A, and AE-3A. No trend or decreasing trend in manganese is apparent at 16 groundwater monitoring locations, including: bedrock wells MW-5S, MW-6, MW-8, FPC-6B, FPC-11B, AE-2B, and AE-4B; overburden (outwash) well OP-5, AE-4A, MW-4, MW-9, and MW-10; and overburden (till) wells AE-1A, FPC-6A, FPC-9A, and FPC-11A. This is indicative of stable or improving water quality,
- At the GMZ boundary well couplet FPC-6, a review of time series plots for arsenic and manganese indicates that concentrations show no trend in shallow bedrock well FPC-6B. A review of time series plots indicate that manganese concentrations have continued to fluctuate in the shallow overburden (till) well FPC-6A and do not show a clear trend. Arsenic was not reported above the EPA CL or NHDES AGQS at FPC-6A in 2017.
- The Mann Kendall trend analysis reported that manganese concentrations are increasing at overburden (outwash) well OP-2 and no trend is present for arsenic at OP-2 and OP-5 or for manganese at OP-5. A review of time series plots indicate that arsenic shows an apparent increase in OP-5 and manganese shows an apparent decrease in both wells. The manganese concentration at OP-2 was reported at a historical high in the spring, while OP-5 manganese concentrations remain within the historic ranges. Arsenic showed a slight increase in concentration at OP-2 for the Fall 2017 sampling (15 ug/L to 26 ug/L). However, concentrations remain below the historical high.
- Arsenic and manganese concentrations at bedrock well BP-4 appear to be slowly increasing based on a review of the time series plot with concentrations of manganese remaining within historical ranges reported at the well. However, arsenic at BP-4 was reported at a historical high in 2017. Concentrations of arsenic and manganese decrease as one moves east from BP-4, away from the landfill.
- Arsenic concentrations at overburden (till) well FPC-9A appear to be slowly increasing since August 2008. However, the magnitude of increase is very low, and concentrations remain within historical ranges reported at the well.
- At open borehole well MW-6, manganese concentrations have fluctuated over time. Changes in sampling methodologies (as highlighted on the time series plot) have been accompanied by significant changes in manganese concentrations and affect the accuracy of the manganese trend determination. Arsenic concentrations continue to be well below the AGQS/CL and have remained stable during the transition between different sampling methods.
- Bedrock wells MW-5D, AE-1B, and AE-3B and overburden (till) wells AE-2A and AE-3A reported increasing trends in manganese. Although these wells have shown an increase, the magnitude of the increase is generally low, and concentrations remain at/below historical ranges reported in wells.

5.5 Status of Constituents of Concern in Groundwater

A table summarizing the COCs and associated EPA-established CLs and/or NHDES-established AGQSs is provided in **Section 1.1**. Analytical data for each COC from November 2000 to September 2017 at groundwater monitoring location identified in the SAP are provided in **Table 9**. Although PFAS has not been formally designated as a COC, a summary of analytical results from 2016 and 2017 are included in **Table 9**. A brief summary of the status of each constituent, based on the data presented in **Table 9** is provided below:

- Benzene: Trace concentrations below the CL/AGQS continue to be reported in seven monitoring wells located in close proximity to or downgradient of the landfill. In the last five years, concentrations have exceeded CLs or AGQSs at 2 wells (MW-8 and GZ-105). No exceedances were reported since 2015.
- Chlorobenzene: Trace concentrations continue to be reported in seven monitoring wells located in close proximity to or downgradient of the landfill. The last exceedance of an CL or AGQS was reported at MW-9 in 2002.
- Tetrachloroethylene: No detections have been reported since the start of the long-term monitoring plan in 1999.
- Tetrahydrofuran: In the last five years, detections have been reported at six monitoring wells located in close proximity to or downgradient of the landfill. MW-8 slightly exceeded the CL (154 ug/L) for tetrahydrofuran during 2016. However, was reported below the CL in 2017 (110 and 120 ug/L, Spring and Fall 2017). Prior to that, the last reported exceedance of an CL or AGQS was in 2010 (MW-8).
- 1,2-dichloropropane: No detections have been reported since the start of the long-term monitoring plan in 1999.
- 2-butanone: In 1998 and 1999, trace concentrations were reported at MW-11. No detections have been reported since 2000.
- Diethyl phthalate / Phenol: In May 1998 and April 1999, groundwater samples were submitted for analysis of semi-volatile organic compounds (SVOCs) and no exceedances were reported. Therefore, SVOCs were removed from the long-term monitoring plan.
- Trans-1,2-dichloroethene: No detections have been reported since the start of the long-term monitoring plan in 1999.
- 1,4-dioxane: Since August 2009, samples from selected monitoring wells have been analyzed for 1,4-dioxane with a low-level detection limit methodology (EPA Method 8260B SIM). However, all monitoring wells were analyzed for 1,4-dioxane in 2017. 1,4-dioxane is commonly reported above the CL/AGQS in monitoring wells located in close proximity to or downgradient of the landfill and was reported in 17 of the 37 wells sampled in 2017 above the CL/AGQS. Trace concentrations below the AGQS have been reported at two water supply wells (R-3 and 339BHR) located downgradient of the landfill along Breakfast Hill Road. 1,4-dioxane was also reported a trace concentration at water supply well 178A LR, which was sampled for the first time in 2017. 1,4-dioxane was not detected in the 20 other water supply wells sampled in 2017. Increasing trends did not occur for any wells sampled in 2017. A visually apparent decreasing trend in 1,4-dioxane concentrations is present at shallow bedrock wells MW-5S, MW-8, MW-11, and FPC-8B, in overburden monitoring wells AE-2A and AE-3A screened in the till unit, and in bedrock wells BP-4, AE-2B, and AE-3B.
- Tertiary butyl alcohol (TBA): Samples from selected monitoring wells have been analyzed for TBA since 2007. TBA has been reported above the reporting limits at two wells (MW-5D, Fall 2017, and MW-8, Spring 2017). Both wells reported a concentration slightly above the NHDES AGQS in 2017.

- Antimony: Antimony is rarely detected in groundwater. The last exceedance was an isolated detection/exceedance reported at AE-4A in 2006.
- Arsenic/Manganese: Arsenic and manganese are reported above cleanup criteria (CL/AGQS) at many wells located in close proximity to or downgradient of the landfill. Arsenic and/or manganese exceedances were or have been reported at several monitoring wells (FPC-7, AE-1 and AE-4, and historically at GZ-123, GZ-125 and FPC-2) located hydraulically upgradient or cross-gradient of the impacted groundwater area. An arsenic and manganese background study will be completed in 2018 to determine if this result remains consistent with previous interpretations (Summit, 2013) indicating the landfill is ***not*** considered to be the primary source of arsenic and manganese in groundwater and that a reducing condition in groundwater downgradient of the landfill resulted in the mobilization of naturally occurring arsenic and manganese present in overburden and bedrock.
- Beryllium: Beryllium is rarely detected in groundwater. The last exceedance was an isolated detection/exceedance reported at MW-6, AE-1A and FPC-11A in 2004.
- Chromium/Lead/Nickel: Chromium, lead and/or nickel exceedances (total metals) were reported at one well (MW-4) in 2006, 2007, and 2008. However, only trace concentrations well below cleanup criteria were reported at MW-4 since 2009.
- Vanadium: Trace concentrations have been reported at selected monitoring wells. No exceedances have been reported since 2005.
- PFOA: PFOA was reported above the Federal HA of 70 ng/L in eight OU-1 wells and nine OU-2 wells. The wells exceeding the HA are generally in close proximity to, downgradient of, or along the western edge of the landfill. There is insufficient data to establish trends. However, concentrations have been generally consistent with 2016 data, with no well showing a significant increase. Monitoring wells MW-10 and OP-2 , were only sampled in 2017 and reported concentrations of PFOA in exceedance of the HA for one or both of the 2017 sampling events. However, MW-10 and OP-2 could not be compared to 2016 concentrations as they weren't sampled in 2016. Concentrations reported in MW-10 are consistent with concentrations reported in well MW-9, located approximately 300 feet to the south of MW-10. OP-2 is located along the northeastern corner of the landfill.
- PFOS: PFOS was reported above the Federal HA of 70 ng/L in five OU-1 wells and five OU-2 wells. The wells are generally in close proximity to, downgradient of, or along the western edge of the landfill. There is insufficient data to establish trends. However, concentrations have been generally consistent with 2016 data, with no well showing a significant increase. MW-10, located along the western edge of the landfill, was only sampled in 2017 and could not be compared to 2016 concentrations. Concentrations reported in MW-10 are consistent with concentrations reported in well MW-9, located approximately 300 feet to the south of MW-10.

- Combined PFOA/PFOS: The combination of PFOA/PFOS was reported above the Federal HA of 70 ng/L in nine OU-1 wells and nine OU-2 wells. The wells are generally in close proximity to, downgradient of, or along the western edge of the landfill. There is insufficient data to establish trends. However, concentrations have been generally consistent with 2016 data with no one well showing a significant increase. Groundwater samples collected from monitoring wells MW-10 and OP-2, were analyzed for the presence of PFAS for the first time in 2017 and detected concentrations of PFOA/PFOS above the HA for one or both of the 2017 sampling events. Concentrations reported in MW-10 are consistent with concentrations reported in well MW-9, located approximately 300 feet to the south of MW-10. OP-2 is located approximately 100 feet from the northeastern boundary of the landfill and concentrations of PF0A/PFOS are similar or less than other monitoring wells located in close proximity to the landfill.

5.6 Surface Water Quality Regulatory Threshold Exceedances

Results for samples collected 2017, indicate that water quality meets NHDES Surface Water Standards for acute and chronic exposure scenarios, with the following exceptions:

- Iron at SW-111 and SW-BB1 exceeded the chronic standard of 1 mg/L during the Fall 2017 sampling event. SW-BB1 is located in a wetland area and SW-111 is located in an area of decomposed sediments that would result in reducing conditions due to decomposition of organic materials. As a result of these reducing conditions, soluble iron would be expected at relatively high concentrations. The elevated iron concentration is thought to be naturally occurring due to the nature of the sample location and is not attributable to an impact from the landfill.
- Copper at SW-103 during the Spring 2017 sampling event and at SW-BB2 during the Fall 2017 sampling event exceeded the chronic standard of 0.0027 mg/L.
- Zinc exceeded the acute and chronic standards (0.0362 and 0.0365 mg/L, respectively) at SW-BB2.
- Selenium at SW-5 was reported above the chronic standard of 0.0005 mg/L during the Fall 2017 sampling event.
- Note that cadmium, selenium, silver and lead were reported as “less than” the reporting detection limit (RDL). The RDLs are consistent with RDLs specified in the SAP. However, they exceed the "default" NHDES Surface Water Standards for acute and/or chronic exposure scenarios (refer to **Table 4**). Cadmium, selenium, silver, and lead have not been reported at elevated concentrations in groundwater samples or identified as constituents of concern at the landfill. Therefore, surface water quality impacts from these constituents are not considered to be attributable to the landfill.
- PFOS at SW-5 (Fall 2017), SW-5 Dup (Spring and Fall 2017), and SW-103 (Fall 2017) slightly exceeded the EPA Site-specific surface water Screening Level for Child Recreator (exposure factor equal to 120 days) of 760 ng/L. SW-5 and SW-103 are located along the northwestern edge of the landfill to the east of the former railroad. Concentrations decline significantly with distance from the landfill and are below the screening level at all other surface water sampling locations. PFOS concentrations in surface water beyond the GMZ boundary are well below screening levels.

5.7 L-1 Seep Quality Regulatory Threshold Exceedances

The L-1 seep sample is collected from a seepage area along an embankment near the northwest corner of the landfill and in close proximity to the northwestern stormwater pond outfall discharge pipe. Seepage from the embankment and discharge from the outfall pipe enter a wetland area immediately adjacent to the sample location.

Results for the sample indicate that water quality meets NHDES Surface Water Standards for acute and chronic exposure scenarios, with the exception of iron, which exceeded the chronic standard of 1 mg/L during the spring and fall sampling events. Iron has historically exceeded the chronic standard in the L-1 sample. Ammonia-N has historically exceeded the chronic and/or acute standards at L-1. However, concentrations fell below both standards for the spring and fall sampling events.

The 2017 spring and fall sampling are the first two events for PFAS sampling at location L-1. Results from the spring sampling event detected PFOS at concentrations above the EPA Site-specific surface water Screening Level for Child Recreator (exposure factor equal to 120 days) of 760 ng/L (1,930D ng/L, original sample; 1,560J ng/L, duplicate sample). The combined PFOS and PFOA concentration at L-1 was greater than 2,000 ng/l for the spring samples while the fall results detected a combined PFOS and PFOA concentration of less than 500 ng/l. EPA Screening Levels were not exceeded for any parameter during the fall event at location L-1.

The concentrations of most constituents in the 2017 spring sample are notably different than historical L-1 samples. It is possible that the 2017 spring sample may have contained a large component of stormwater. The vast majority of L-1 samples have been collected in the summer and fall. As a result, there is little data to judge the effect of seasonal (wet vs dry periods) variation on water quality at L-1 but this will be investigated further in 2018.

5.8 Sediment Regulatory Threshold Exceedances

Analytical results for sediment samples and the National Oceanic and Atmospheric Administration Screening Quick Reference Tables (NOAA SQuiRT Tables) Threshold Effect Concentrations (TEC) for freshwater sediment applicable to this Site are summarized in **Table 5**. Results for samples collected 2017, indicate the following TEC exceedances:

- Total arsenic at SED-5 and SED-5 Dup (Spring and Fall 2017), SED-LR and SED-BB2 (Fall 2017 only) exceeded the TEC of 9.79 mg/kg.
- Total cadmium at SED-4 (Fall 2017 only) exceeded the TEC of 0.99 mg/kg.
- Total chromium at SED-5 and SED-5 Dup (Fall 2017 only) exceeded the TEC of 43.4 mg/kg.
- Total Copper at SED-5 and SED-5 Dup (Spring and Fall 2017) exceeded the TEC of 31.6 mg/kg.
- Total lead at SED-4, SED-5, SED-5 Dup, and SED-110 (Spring and Fall 2017) and SED-111 (Fall only) exceeded the TEC of 35.8 mg/kg.
- Total mercury at SED-4 (Spring and Fall 2017) and SED-5, SED-5 Dup, SED-110 (Spring 2017 only) exceeded the TEC of 0.18 mg/kg.
- Total nickel at SED-5, SED-5 Dup, SED-LR, and SED-BB1 (Fall 2017 only) exceeded the TEC of 22.7 mg/kg.
- Total zinc at SED-4 (Fall 2017 only) exceeded the TEC of 121 mg/kg.

Sediment samples SED-110, SED-111, SED-LR, SED-BB1, and SED-BB2 were collected for the first time in 2017 and cannot be compared to historical data. However, there were very few TEC exceedances at these locations. For those parameters exceeding their respective TEC for samples collected for the first time in 2017, concentrations were typically near the applicable TEC. A review of historical data indicated that concentrations of lead and mercury at SED-4 and arsenic, copper, nickel, lead, and mercury at SED-5 have previously been reported above the TEC. Concentrations of PFAS were not detected in any samples collected in 2017 at concentrations above applicable EPA sediment Screening Levels.

As previously discussed in **Appendix E**, all detections for 1,4-dioxane and PFAS for SED-04 (Spring and Fall 2017), SED-5 (Spring 2017) and SED-5 Dup (Spring 2017) were qualified as estimated and all non-detects were qualified as having estimated detection limits due to low percent solids in accordance with EPA analytical data validation criteria (i.e., lower than 30% solids by dry weight). Historical data indicates that percent solids less than 30% have been commonly reported in the past at SED-4 and SED-5 due to the nature of the matrix (i.e., decomposed organic material). Sediment results are based on dry weight.

Sediment at SED-4 and SED-5 is primarily organic material which has a high capacity to retain water. A review of soil taxonomy literature indicates that the saturated water (non-free draining) content in organic soils (fibric or hemic soils) on the basis of percent of oven-dry weight ranges from 450% to 3,000%. On this basis, changes to sampling procedures (i.e., trying to decant more) are not warranted as the low percent solids (by dry weight) are inherent to the matrix itself.

SECTION 6 | CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Based on a review of analytical results for the 2017 sampling events and historical data, CES concludes the following:

<u>Groundwater</u>

- Results of Data Check's Tier I Plus Data Validation and CES' review of the analytical data indicated the laboratory analytical data package is considered 99% complete, of good quality, and meets data quality objectives. Only minor data qualification was warranted, with the exception of the hexavalent chromium results in five monitoring wells.
- Groundwater quality results for 2017 met EPA-established CLs and/or NHDES-established AGQSs for benzene, chlorobenzene, tetrachloroethene, 1,2-dichloropropane, methyl ethyl ketone (2-butanone), tetrahydrofuran, trans-1,2-dichloroethene, antimony, beryllium, chromium, lead, nickel, and vanadium. Consistent with historical results, 1,2-dichloropropane, methyl ethyl ketone, and trans-1,2-dichloroethene were reported as Not Detected above laboratory reporting limits in all groundwater and surface water samples collected.

- Consistent with historical results, CL and/or AGQS exceedances were reported for 1,4-dioxane, tert-butyl alcohol, arsenic, and manganese in one or more wells. In general, the parameters and locations that exceeded the regulatory thresholds are similar to historical monitoring events. Benzene exceedances have historically occurred at several monitoring wells. However, consistent with an overall decreasing trend in benzene concentrations in site groundwater, no benzene exceedances were reported in 2017. Tert-butyl alcohol exceedances were limited to two wells in 2017.
- Groundwater samples from 37 monitoring wells in OU-1 and OU-2 were submitted for analysis of 1,4-dioxane using a low-level detection limit methodology (8260B SIM). 1,4-dioxane concentrations exceeding the EPA CL/NHDES AGQS were reported in 8 of the 11 monitoring wells sampled in OU-1, and 9 of the 26 monitoring wells sampled in OU-2. Results are generally stable or decreasing as compared with historical data.
- No CL or AGQS exceedances were reported for arsenic, 1,4-dioxane or VOCs at the 23 off-site water supply wells sampled in 2017. The manganese concentration at 339BHR, 346BHR, and 4ROD slightly exceeded the CL (0.3 mg/L) but were well below the AGQS (0.84 mg/L) while the concentration of manganese at 5BFL exceeded the CL and AGQS.
- In 2017, 1,4-dioxane was not detected above the laboratory reporting limit of 0.25 ug/L at 21 of the 24 water supply wells sampled. 1,4-dioxane was reported at very low concentrations (0.29 to 0.54 ug/L) close to the detection limit of 0.25 ug/L at three water supply wells (R-3, 339BHR, and 178ALR). Visual review of time series concentration plots and statistical trend analyses indicate that 1,4-dioxane concentrations are stable at R-3 and 339BHR. 2017 was the first sampling at 178ALR. Therefore, a trend could not be established.
- A review of data for two monitoring well couplets (FPC-5 and FPC-6) located hydraulically upgradient of R-3 and 339BHR reported no trend (i.e., concentrations remained stable) for 1,4-dioxane, arsenic, and manganese.
- The combined concentration of PFOA/PFOA did not exceed 15 ng/l in any of the 23 off-site water supply wells sampled in 2017, with 22 or 23 samples ranging from ND to less than 10 ng/l. New detections of PFAS in off-site water supply wells during the Fall 2107 sampling event were a result of using a lower reporting limit and are concluded to not be a change in conditions or increased migration.
- Arsenic concentrations exceeding the EPA CL and NHDES AGQS of 0.01 mg/L were reported in 9 of the 11 monitoring wells sampled in OU-1, and 9 of the 26 monitoring wells sampled in OU-2, which is consistent with the number of wells reported exceeding the EPA CL and NHDES AGQS in 2016.
- Manganese concentrations exceeding the EPA CL (0.3 mg/L) were reported in 11 of the 11 monitoring wells sampled in OU-1, and 12 of the 26 monitoring wells sampled in OU-2. Manganese concentrations exceeding the AGQS (0.84 mg/L) were reported in 10 of the 11 monitoring wells in OU-1, and 4 of the 26 monitoring wells in OU-2.
- The number of HA exceedances for PFOA in 2017 are consistent with 2016 results, with the exception MW-5D, which had not been reported above the HA in 2016. Concentrations of PFOA in MW-5D during the fall event are only slightly higher than those reported in 2016.
- The number of HA exceedances for PFOS in 2017 are consistent with 2016, with the exception of AE-3B, which was reported slightly above the HA during the Spring 2017 event. PFOS results for AE-3B during the fall event did not exceed the HA and were consistent with the 2016 results.
- The number of HA exceedances for the combination of PFOA/PFOS in 2017 is consistent with 2016, with the exception of BP-4, which was reported above the HA during the Spring 2017 event only. The concentration of PFOA/PFOS combined in BP-4 did not exceed the HA during the fall event.

- Two wells sampled for the first time for PFAS in 2017 reported exceedances of the HA for PFOA, PFOS, and/or PFOA/PFOS combined. MW-10 exceeded PFOA, PFOS, and PFOA/PFOS combined during the Spring and Fall 2017 sampling events. OP-2 exceeded the HA for PFOA and PFOA/PFOS combined during the Spring 2017 only.
- Hexavalent chromium was not detected in any of the groundwater monitoring wells that were sampled during the Spring and Fall 2017 sampling events.

Based on a review of the results of sampling activities in 2017, the existing monitoring well network and groundwater management zone continue to be adequate for monitoring the natural attenuation remedy.

L-1 Seep

- The L-1 seep sample met the applicable regulatory surface water quality standards, with the exception of iron, which is consistent with historical data. The L-1 seep sample met the site-specific EPA surface water Screening Levels, with the exception of PFOS, which exceeded EPA's site-specific surface water screening level during the spring event only. The L-1 seep sample is located approximately 100 feet off the northwestern corner of the landfill and in an area of limited access (several hundred feet from the access road, down an embankment and at the head of a wetland complex).

Surface Water

- Surface water samples met applicable water quality regulatory criteria and site-specific screening levels, with the exception of copper at SW-111 and SW-BB2 (Fall 2017); iron at SW-111 and SW-BB1 (Fall 2017); zinc at SW-BB2 (Fall 2017); and PFOS at SW-5/SW-5 Dup (Spring and Fall 2017) and SW-103 (Fall 2017).

Surface water sample locations in close proximity of L-1 (SW-5, approximately 200 feet north-northwest of L-1 and SW-103, approximately 400 feet northwest of L-1) exhibited elevated concentrations of PFOS during the Spring 2017 event. However, concentrations for the Spring 2017 event decreased with distance from the landfill. SW-BB-2 is located approximately 1,200 feet downstream from SW-103 and reported significantly lower concentrations of PFOS (176 ng/L at SW-BB-1 as compared to 758 ng/L at SW-103) during the Spring 2017 event. Elevated concentrations of PFOS were also detected at SW-5 and SW-103 during the fall event. However, similar to spring 2017 data, PFAS concentrations decrease significantly with distance from the Site and none of the other surface water locations detected PFAS above EPA's site-specific screening level.

Sediment

- Consistent with historical results, sediment standards were exceeded at SED-4 and SED-5 for several metals. SED-110 (lead and mercury), SED-111 (lead), SED-LR (arsenic and nickel), and SED-BB2 (arsenic) were sampled for the first time in 2017 and reported exceedances of similar metals. The Coakley Landfill cap and surrounding areas within the perimeter fence are well vegetated and have been stable for many years. No evidence of significant soil erosion has been observed in on-site inspections by CLG. On this basis, CES concludes that the landfill area (OU-1) is not actively contributing significant amounts of sediment to the wetland areas around the landfill.

6.2 Recommendations

Based on observations and monitoring results from the 2017 sampling events, CES recommends the following:

- The sediment sampling requirement should be reduced to every five years (to coincide with the five-year review) because the landfill cap and surrounding areas within the perimeter fence have been stable for many years with no evidence of significant soil erosion or sediment transport. Annual inspections have not observed or noted erosion issues in the past five years. Sediment toxicity evaluation completed as part of EPA's Five-Year Site Review shows that the sediment at the Site is considered non-toxic to ecological receptors. Results for 2017 did not report any new exceedances of the TEC and are consistent with historical results.
- Well FPC-5A will be properly abandoned due to well integrity issues and a replacement well installed in close proximity to FPC-5B.
- Install two new well couplets in the GMZ to be used as sentinel wells for future assessment of groundwater quality in the GMZ. Installation is planned for 2018 pending final discussions with EPA and NHDES.
- Discontinue sampling groundwater monitoring wells for hexavalent chromium as it was not detected in any wells during either sampling event during 2017.
- Reduce the requirement for a round of groundwater levels prior to the sampling event to annually, as groundwater patterns are well established for the Site.
- Investigate the source of water quality impacts and seepage at the L-1 location including the hydraulic interaction between, the landfill, groundwater, and surface water. The investigation will include reviewing cover system as-built drawings, monitoring well data and historic records to develop a cross section depicting relationships. Verification of elevations for key components (retention pond bottom, pond outfall piping, seepage area and wetland) will be performed. Based on this information a focused sampling program may be developed to further assess sources of water quality impacts.
- OU-1 monitoring wells have typically detected elevated concentrations of COCs as would be expected due to their locations immediately adjacent to the landfill boundary. Frequent monitoring of these wells provides little additional information about the source area. As such, we recommend that OU-1 monitoring wells be sampled once every two years. However, we recommend that water level gauging be continued.

SECTION 7 | REFERENCES

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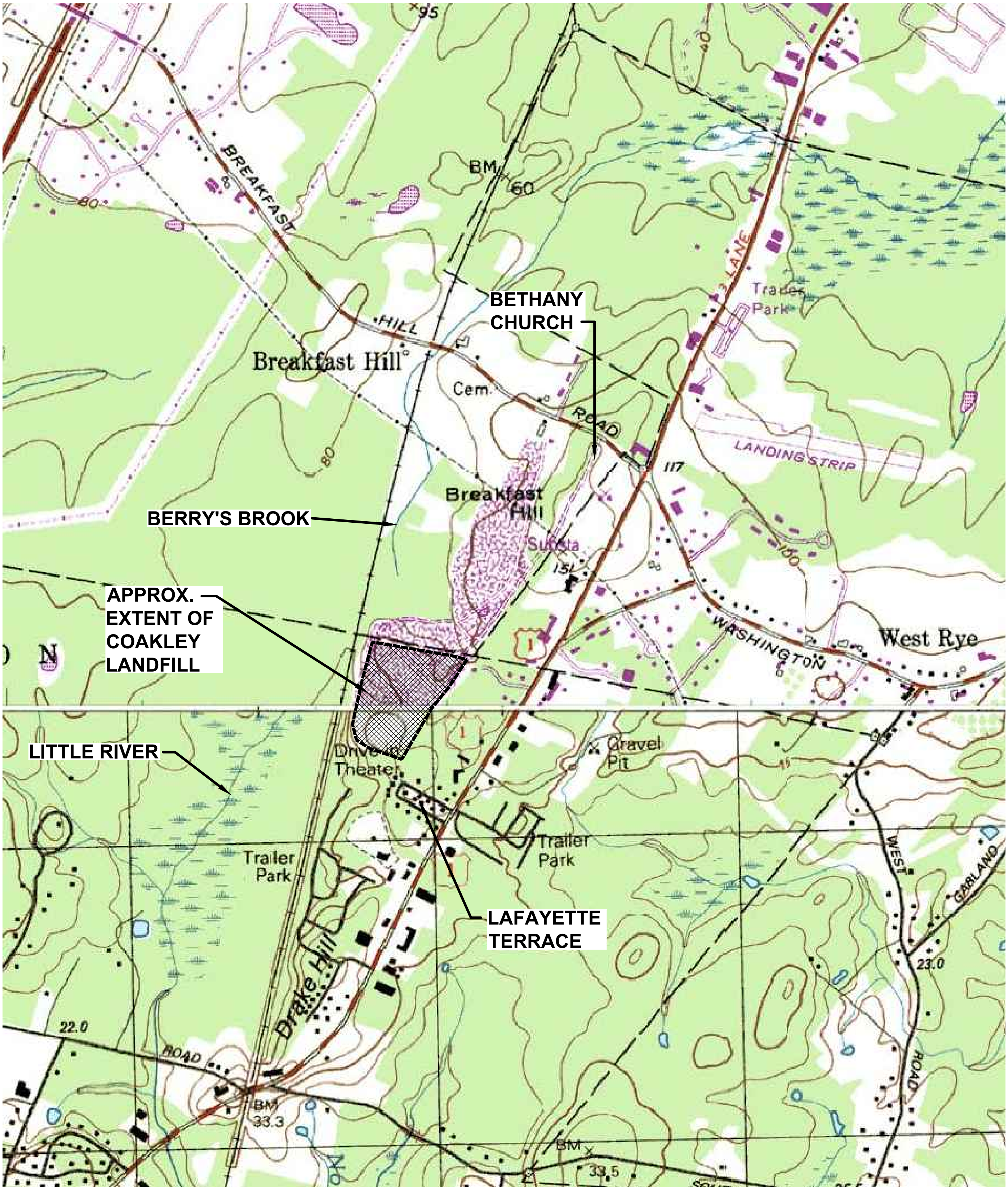
FIGURES

FIGURE 1

SITE LOCATION MAP



SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
PORTSMOUTH
SCALE: 1"=1500'

CES INC

COAKLEY LANDFILL
NORTH HAMPTON, NH

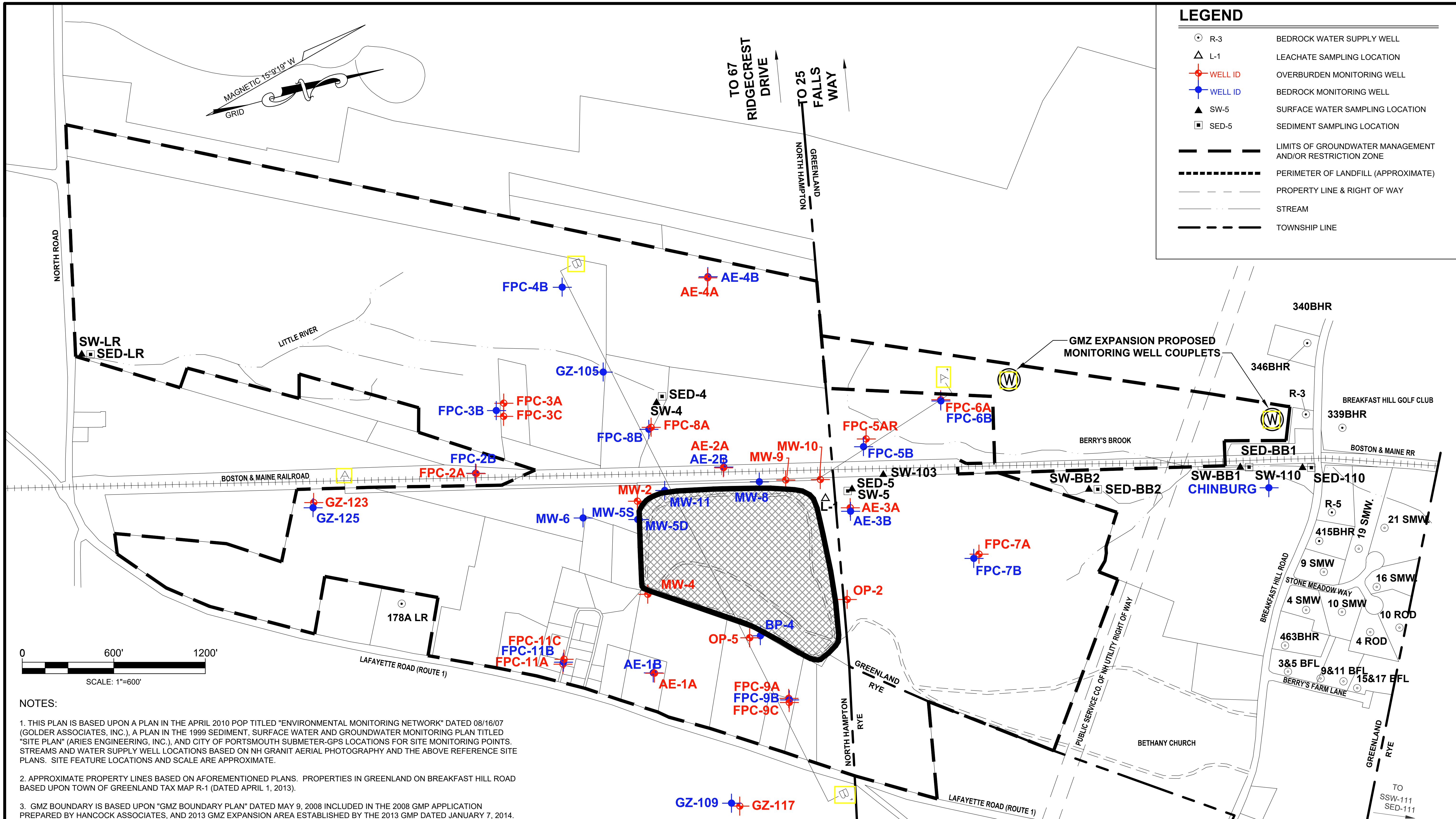
LOCATION MAP

2014-09-08
10424.002

FIGURE 1-1

FIGURE 2

SITE PLAN



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PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 2	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2018-1-24	REV DATE:	
SHEET TITLE: SAMPLING AND ANALYSIS PLAN SAMPLING LOCATIONS	JN: 10424.014	APPROVED BY: SY	ISSUE:	DESCRIPTION:
	SCALE: 1"=600'	CHECKED BY: SY	ISSUE DATE:	

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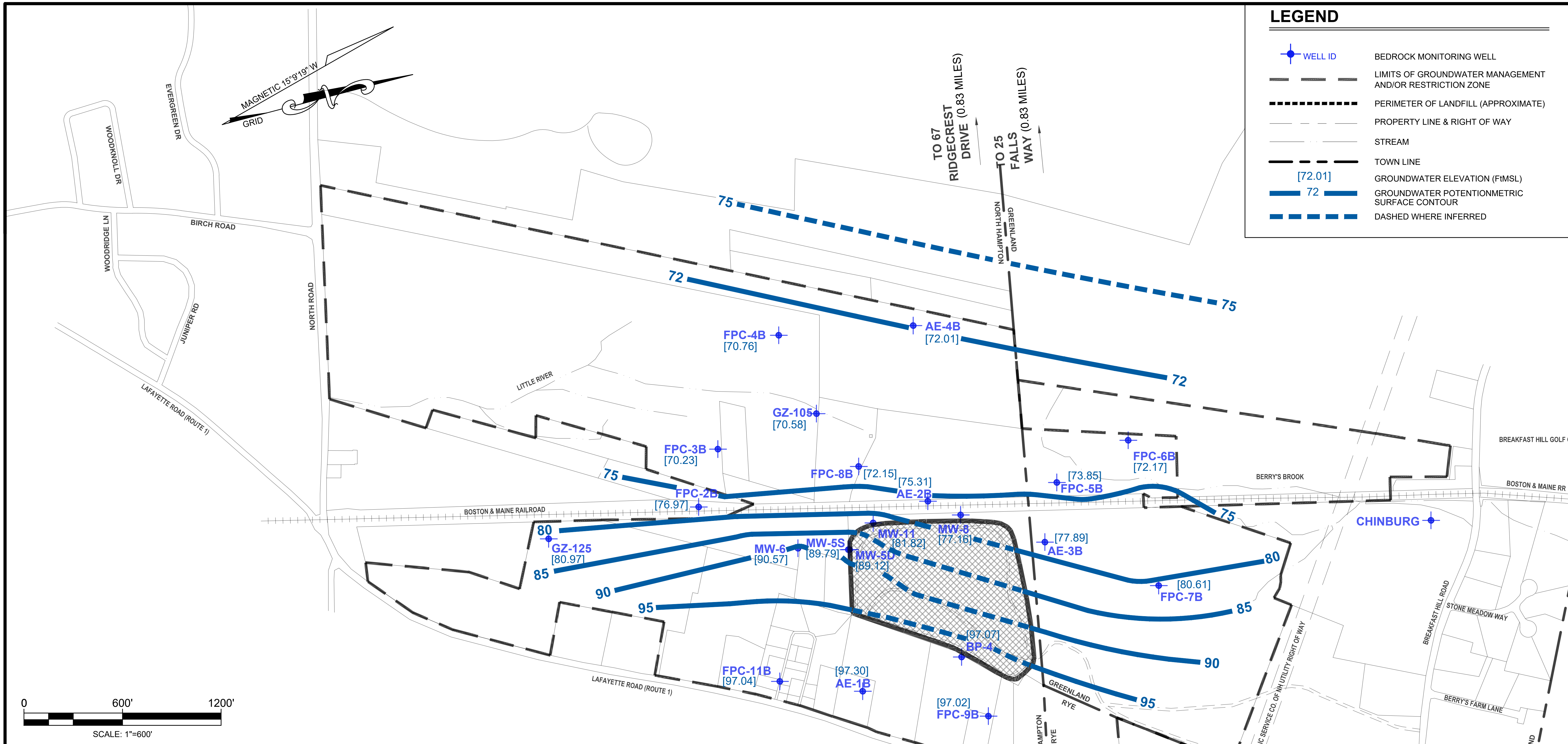
FIGURE 3

GROUNDWATER CONTOURS
SEPTEMBER 2017– BEDROCK WELLS



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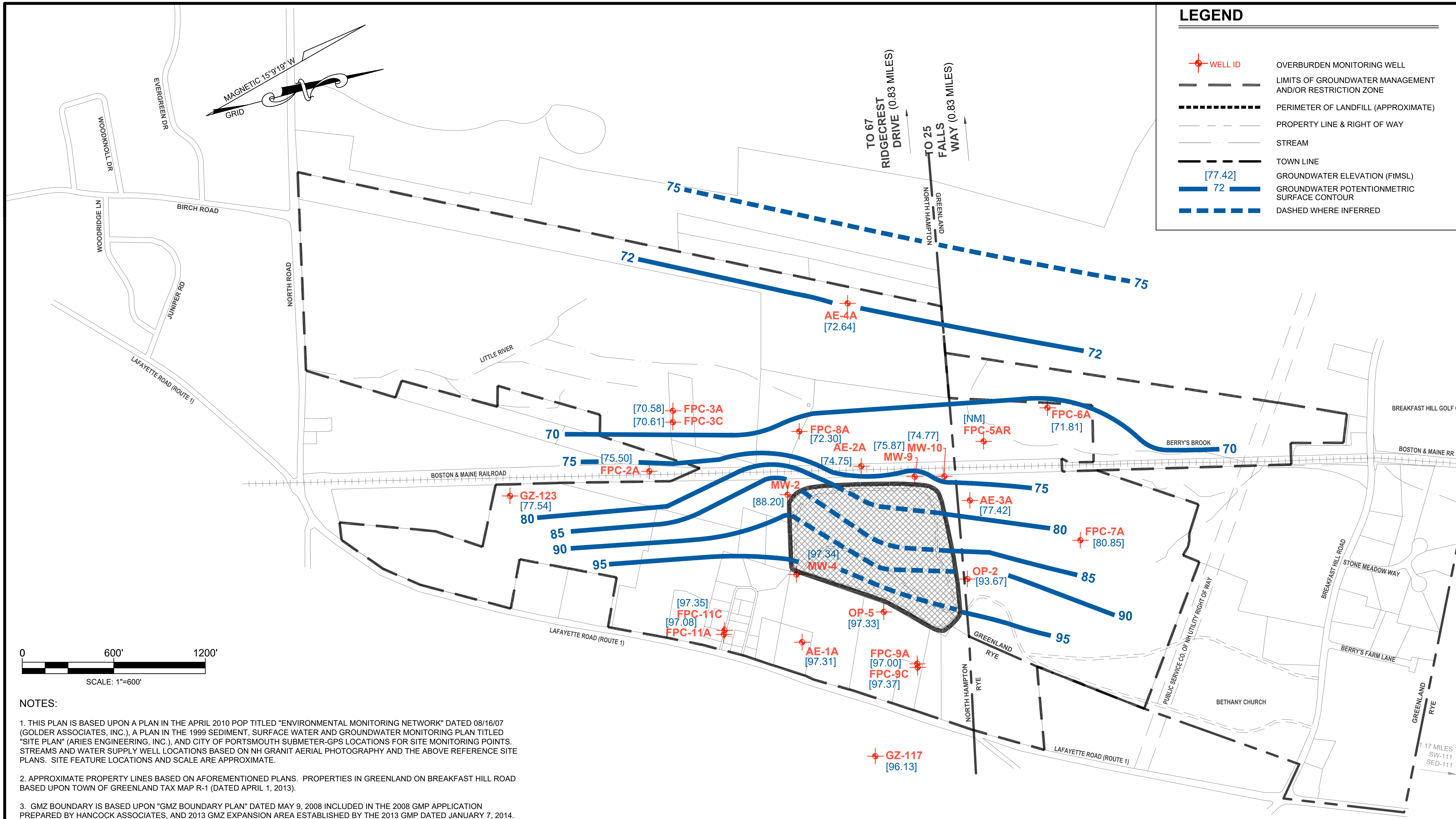
PROJECT TITLE:	DWG:	BY:	REV:	DESCRIPTION:	
COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	FIGURE 3	BLQ			CES INC Engineers • Environmental Scientists • Surveyors
		DATE: 2017-11-20	REV DATE:		
SHEET TITLE: SEPTEMBER 2017 BEDROCK GROUNDWATER POTENTIOMETRIC SURFACE	JN: 10424.002	APPROVED BY: SLY	ISSUE:	DESCRIPTION:	
	SCALE: 1"=600'	CHECKED BY: SLY	ISSUE DATE:		

FIGURE 4

GROUNDWATER CONTOURS
SEPTEMBER 2017– OVERBURDEN WELLS



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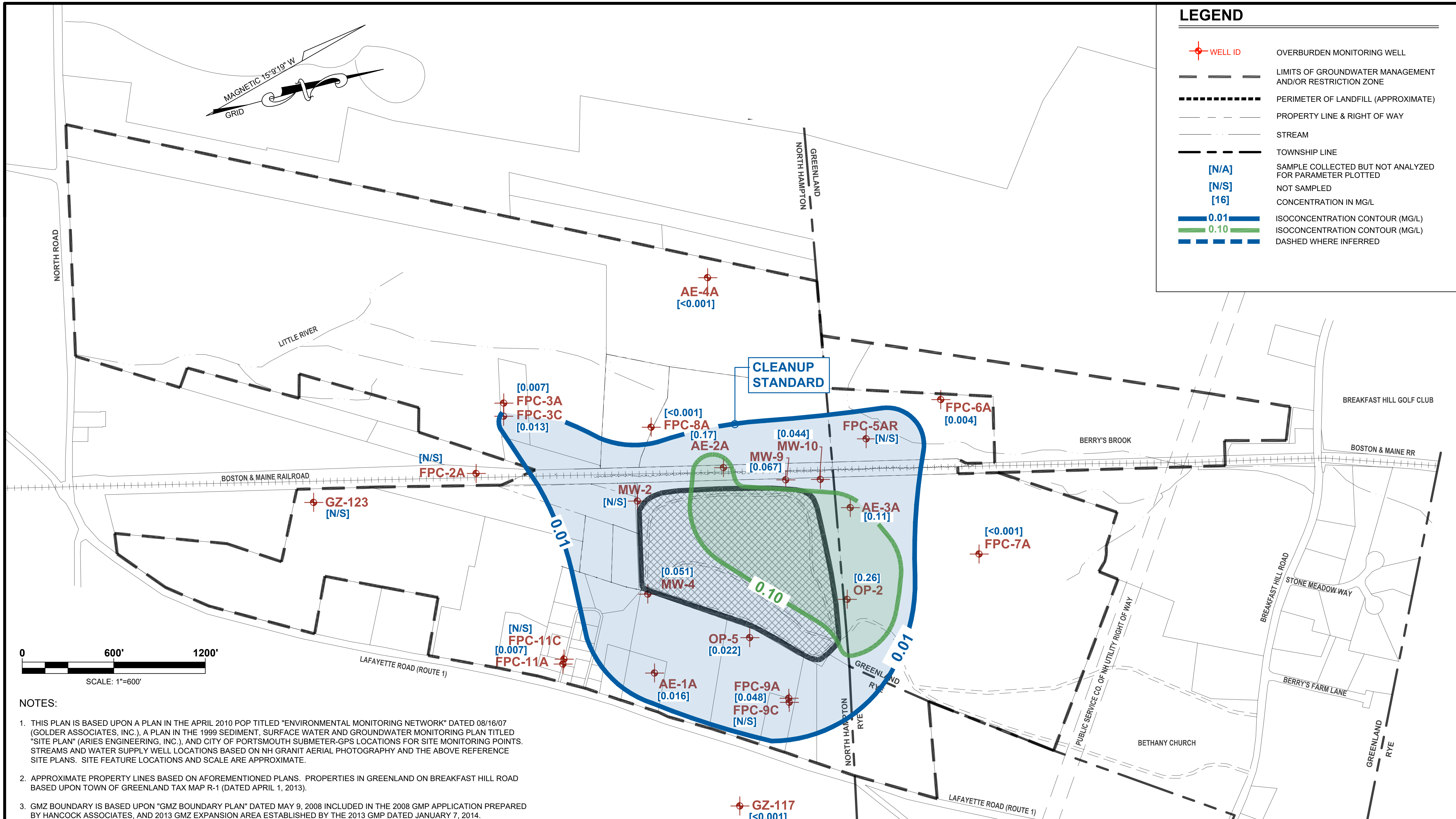
PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 4	BY: BLQ	REV:	DESCRIPTION:	CES INC Engineers • Environmental Scientists • Surveyors
		DATE: 2017-11-20	REV DATE:		
SHEET TITLE: SEPTEMBER 2017 OVERBURDEN GROUNDWATER POTENTIOMETRIC SURFACE	JN: 10424.002	APPROVED BY: SLY	ISSUE:	DESCRIPTION:	
	SCALE: 1"=600'	CHECKED BY: SLY	ISSUE DATE:		

FIGURE 5

LATERAL DISTRIBUTION OF ARSENIC IN OVERBURDEN WELLS



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PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 5	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2017-12-04	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 LATERAL DISTRIBUTION OF DISSOLVED ARSENIC IN OVERBURDEN GROUNDWATER	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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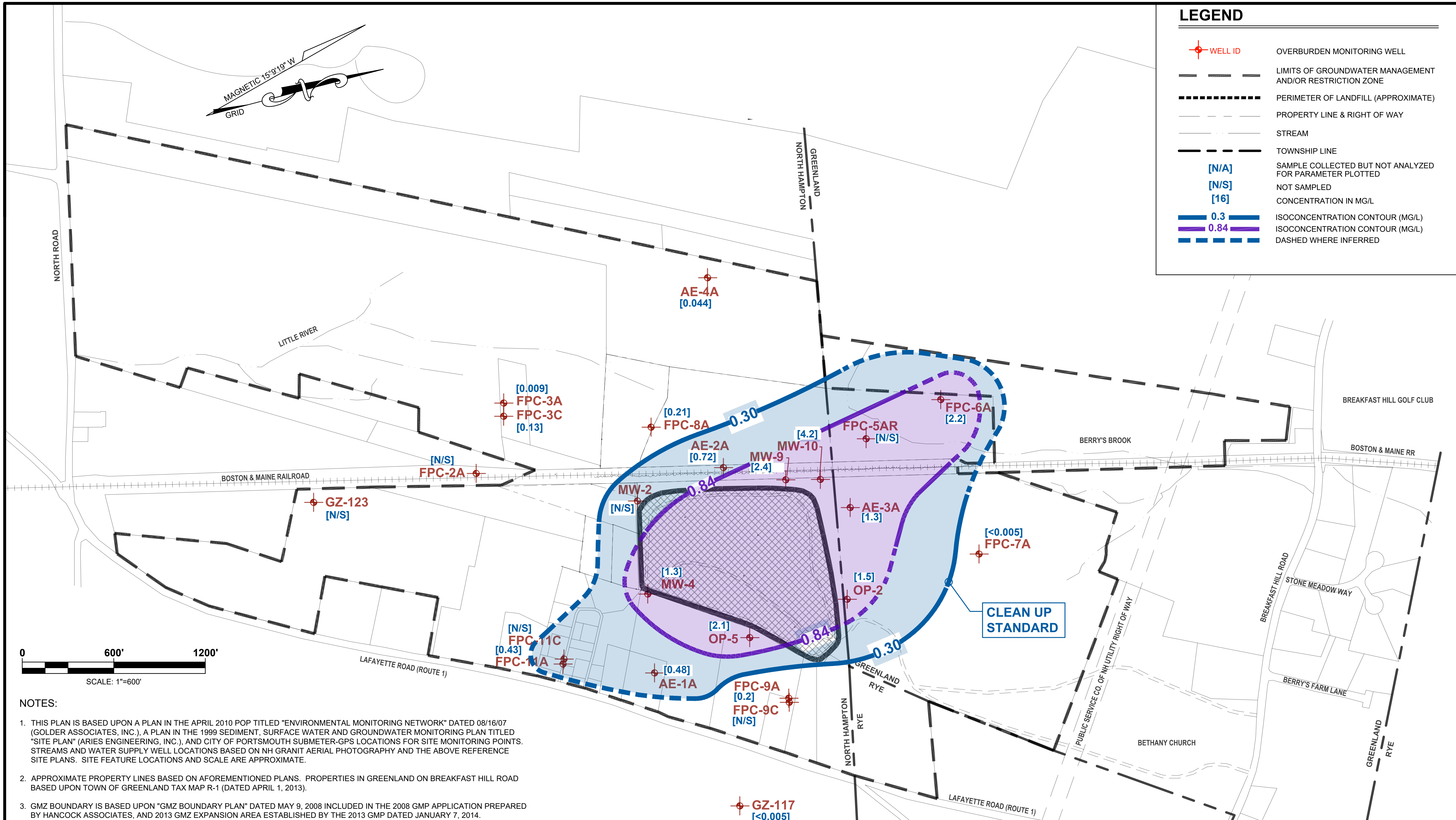
FIGURE 6

LATERAL DISTRIBUTION OF MANGANESE IN OVERBURDEN WELLS



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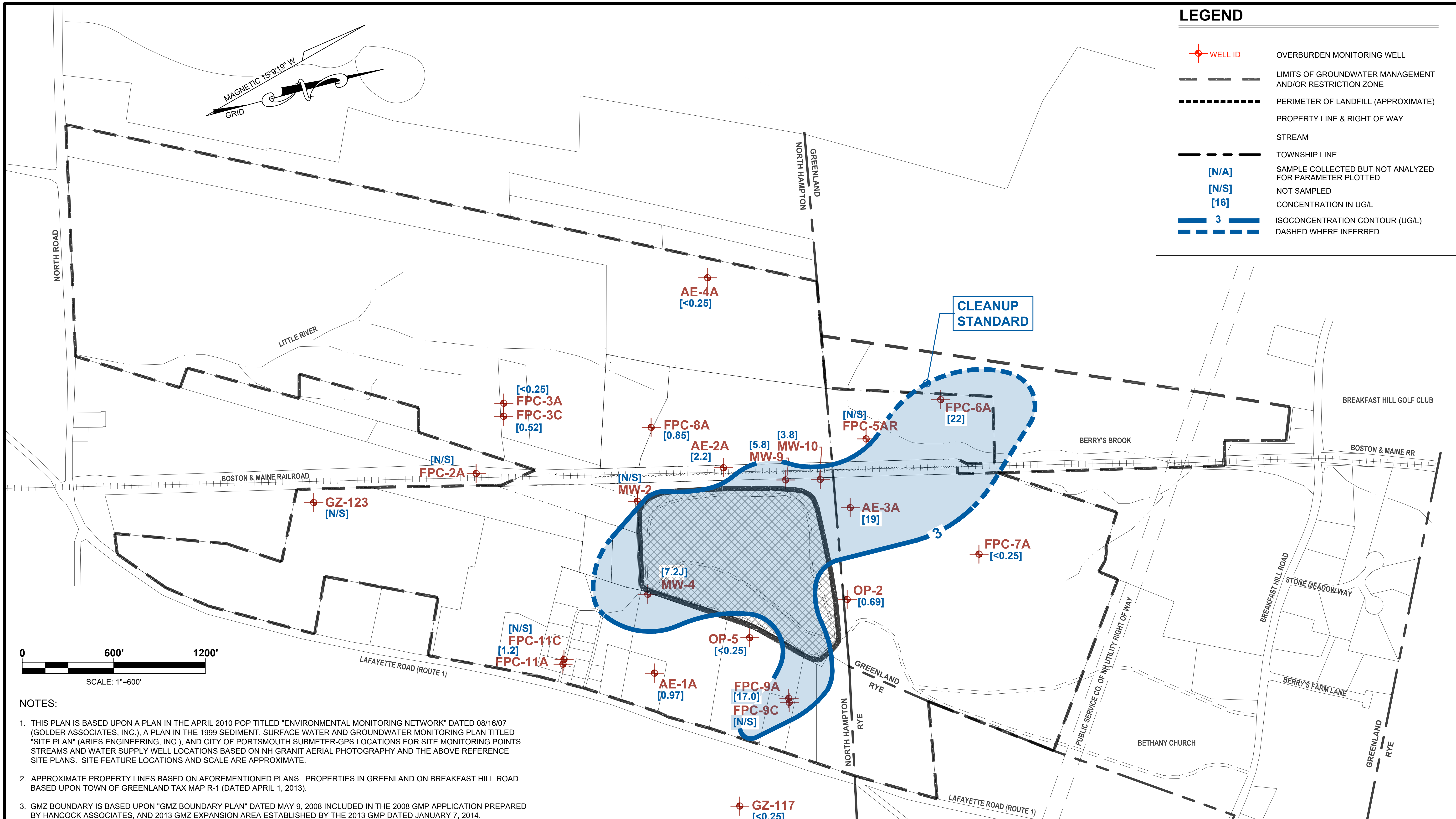
PROJECT TITLE:	COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG:	FIGURE 6	BY:	BLQ	REV:		DESCRIPTION:	
				DATE:	2017-11-13	REV DATE:			
SHEET TITLE:	SEPTEMBER 2017 LATERAL DISTRIBUTION OF DISSOLVED MANGANESE IN OVERBURDEN GROUNDWATER	JN:	10424.011	APPROVED BY:	SLY	ISSUE:		DESCRIPTION:	CES INC Engineers • Environmental Scientists • Surveyors
		SCALE:	AS SHOWN	CHECKED BY:	SLY	ISSUE DATE:			

FIGURE 7

LATERAL DISTRIBUTION OF 1,4-DIOXANE IN OVERBURDEN WELLS



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PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 7	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2017-12-04	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 LATERAL DISTRIBUTION OF 1,4 - DIOXANE IN OVERBURDEN GROUNDWATER	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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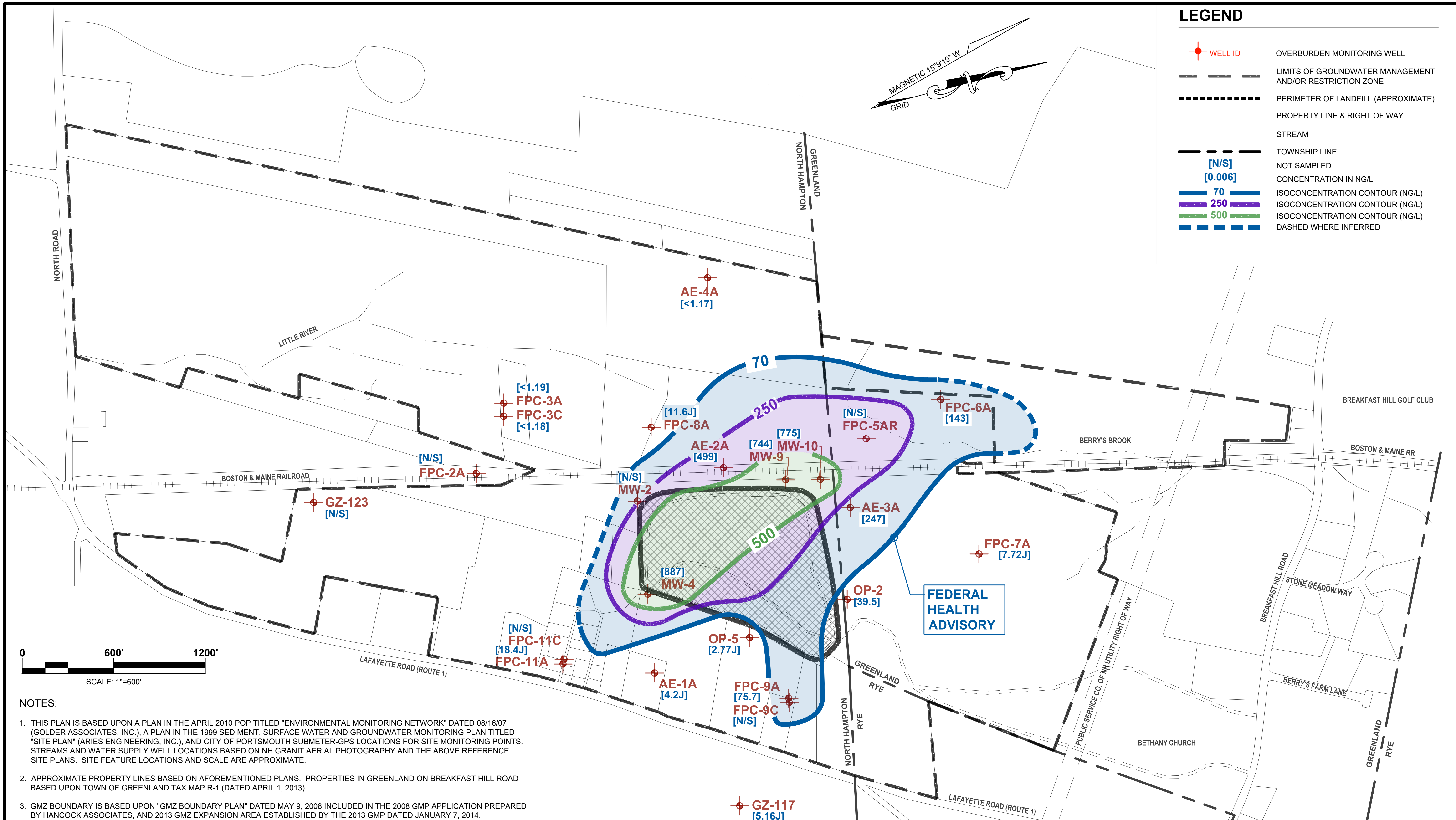
FIGURE 8

LATERAL DISTRIBUTION OF PFOA IN OVERBURDEN WELLS



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PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 8	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2017-12-04	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 LATERAL DISTRIBUTION OF PFOA IN OVERBURDEN GROUNDWATER	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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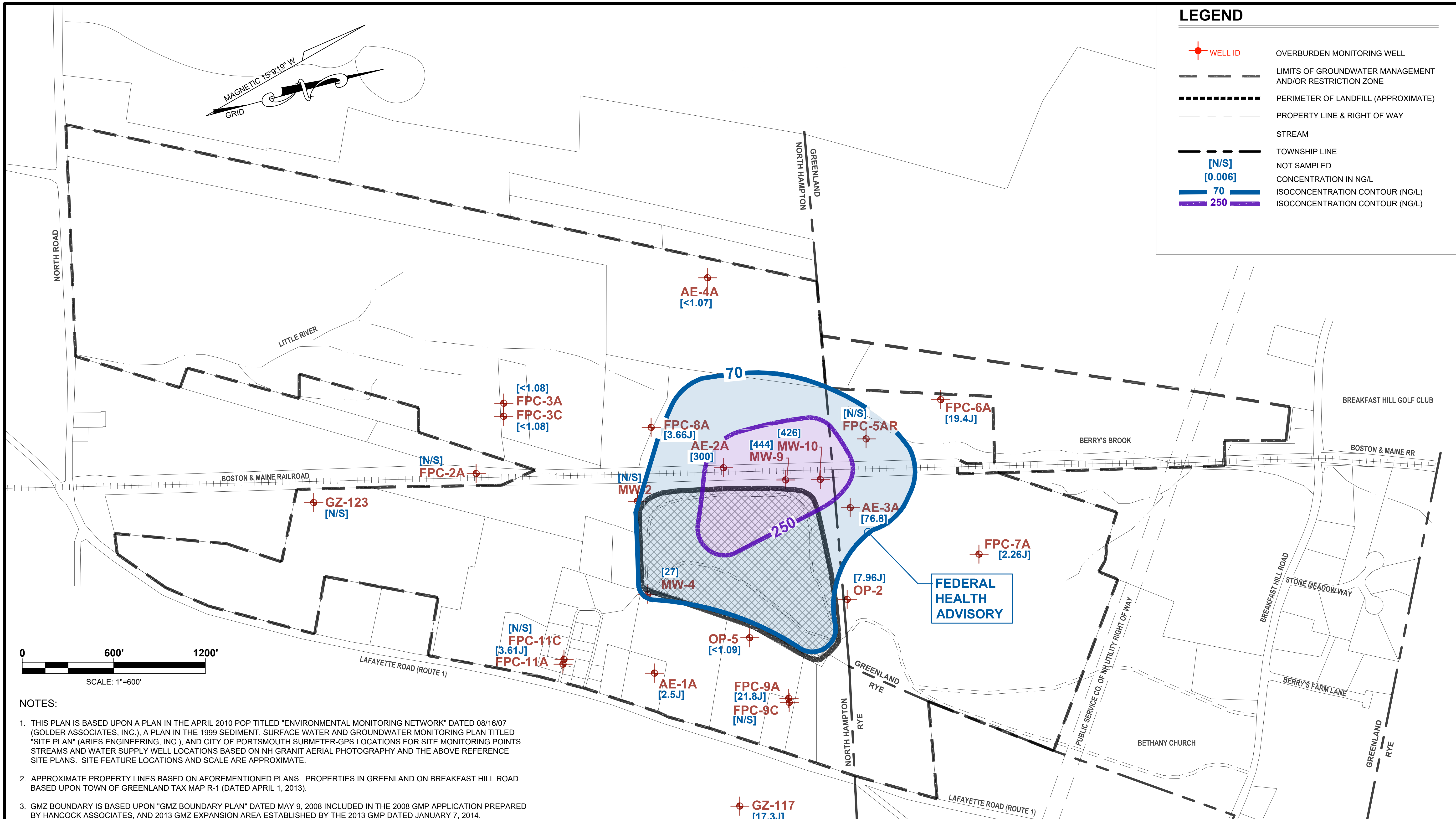
FIGURE 9

LATERAL DISTRIBUTION OF PFOS IN OVERBURDEN WELLS



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PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 9	BY: BLQ	REV:	DESCRIPTION:	
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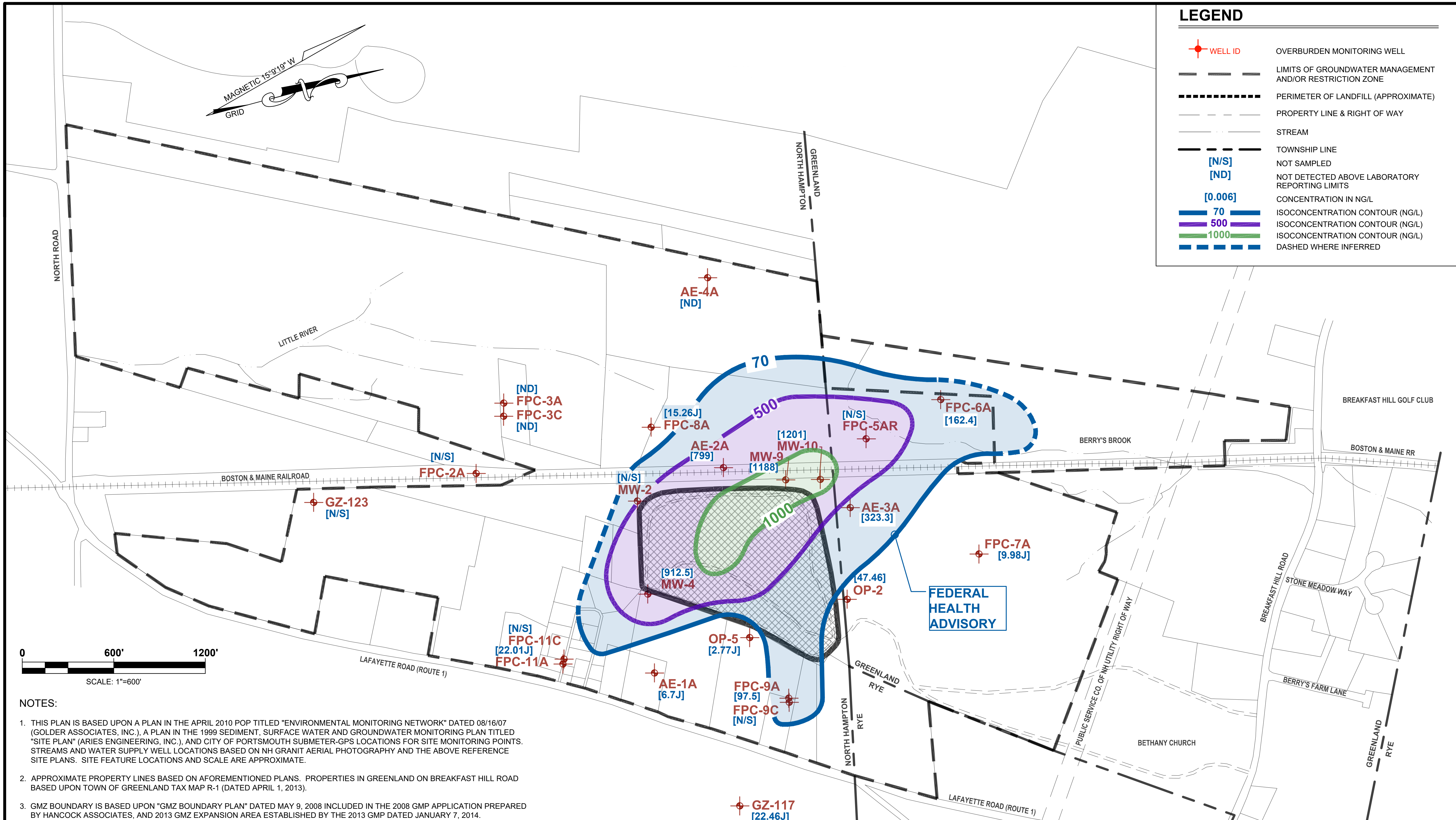
SHEET TITLE: SEPTEMBER LATERAL DISTRIBUTION OF PFOS IN OVERBURDEN GROUNDWATER	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:	CES INC Engineers • Environmental Scientists • Surveyors
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:		

FIGURE 10

LATERAL DISTRIBUTION OF PFOA & PFOS IN OVERBURDEN WELLS



NOTES:

1. THIS PLAN IS BASED UPON A PLAN IN THE APRIL 2010 POP TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07 (GOLDER ASSOCIATES, INC.), A PLAN IN THE 1999 SEDIMENT, SURFACE WATER AND GROUNDWATER MONITORING PLAN TITLED "SITE PLAN" (ARIES ENGINEERING, INC.), AND CITY OF PORTSMOUTH SUBMETER-GPS LOCATIONS FOR SITE MONITORING POINTS. STREAMS AND WATER SUPPLY WELL LOCATIONS BASED ON NH GRANIT AERIAL PHOTOGRAPHY AND THE ABOVE REFERENCE SITE PLANS. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE.

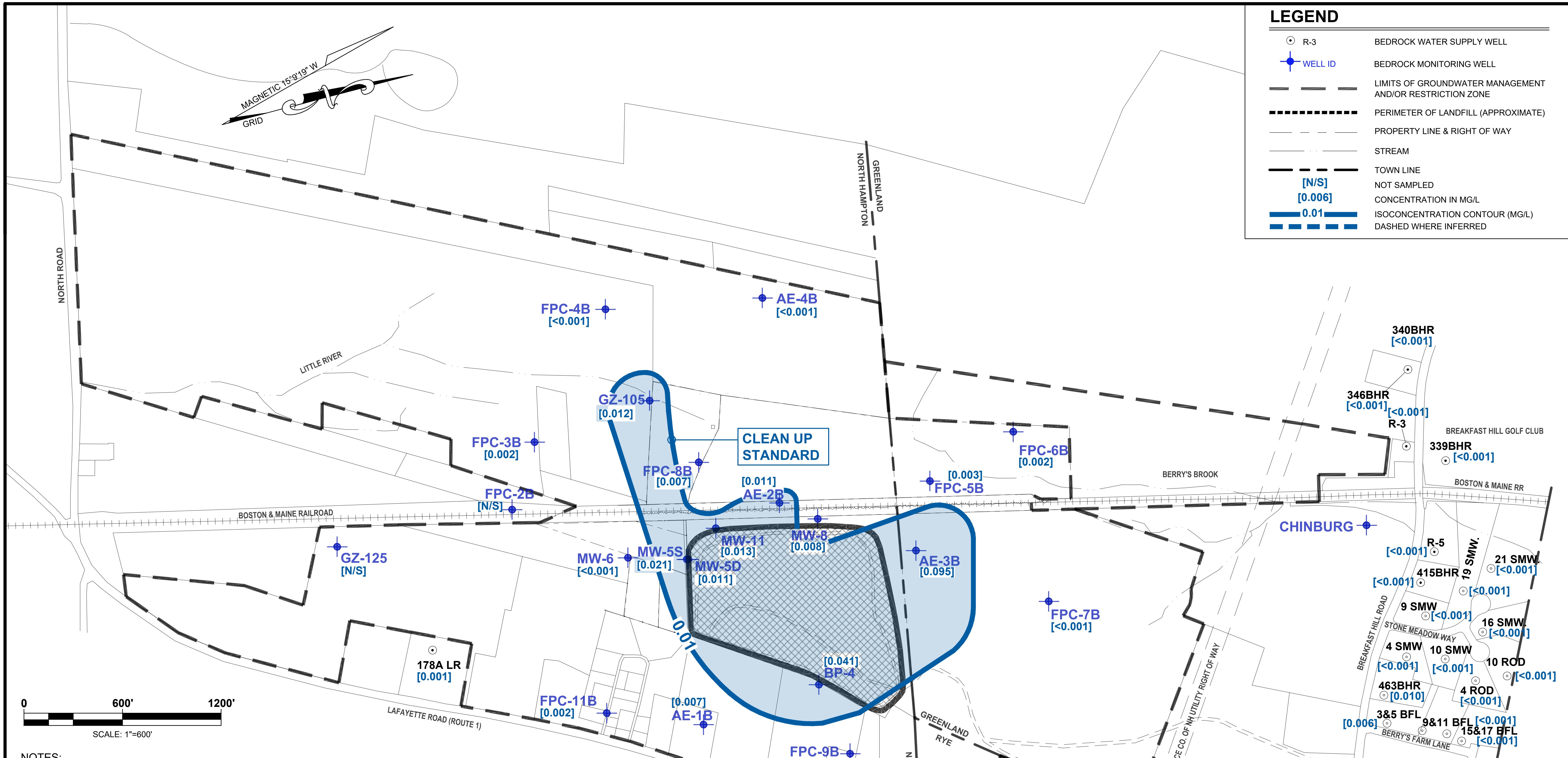
2. APPROXIMATE PROPERTY LINES BASED ON AFOREMENTIONED PLANS. PROPERTIES IN GREENLAND ON BREAKFAST HILL ROAD BASED UPON TOWN OF GREENLAND TAX MAP R-1 (DATED APRIL 1, 2013).

3. GMZ BOUNDARY IS BASED UPON "GMZ BOUNDARY PLAN" DATED MAY 9, 2008 INCLUDED IN THE 2008 GMP APPLICATION PREPARED BY HANCOCK ASSOCIATES, AND 2013 GMZ EXPANSION AREA ESTABLISHED BY THE 2013 GMP DATED JANUARY 7, 2014.

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 10	BY:	BLQ	REV:		DESCRIPTION:		CES INC Engineers • Environmental Scientists • Surveyors
		DATE:	2017-11-08	REV DATE:				
SHEET TITLE: SEPTEMBER 2017 LATERAL DISTRIBUTION OF PFOA + PFOS IN OVERBURDEN GROUNDWATER	JN: 10424.008	APPROVED BY:	SLY	ISSUE:		DESCRIPTION:		
	SCALE: AS SHOWN	CHECKED BY:	SLY	ISSUE DATE:				

FIGURE 11

LATERAL DISTRIBUTION OF ARSENIC IN BEDROCK WELLS



NOTES:

1. THIS PLAN IS BASED UPON A PLAN IN THE APRIL 2010 POP TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07 (GOLDER ASSOCIATES, INC.), A PLAN IN THE 1999 SEDIMENT, SURFACE WATER AND GROUNDWATER MONITORING PLAN TITLED "SITE PLAN" (ARIES ENGINEERING, INC.), AND CITY OF PORTSMOUTH SUBMETER-GPS LOCATIONS FOR SITE MONITORING POINTS. STREAMS AND WATER SUPPLY WELL LOCATIONS BASED ON NH GRANIT AERIAL PHOTOGRAPHY AND THE ABOVE REFERENCE SITE PLANS. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE.
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PROJECT TITLE:	DWG:	BY:	REV:	DESCRIPTION:
COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	FIGURE 11	BLQ		
		DATE: 2017-11-10	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 LATERAL EXTENT OF TOTAL ARSENIC IN BEDROCK GROUNDWATER	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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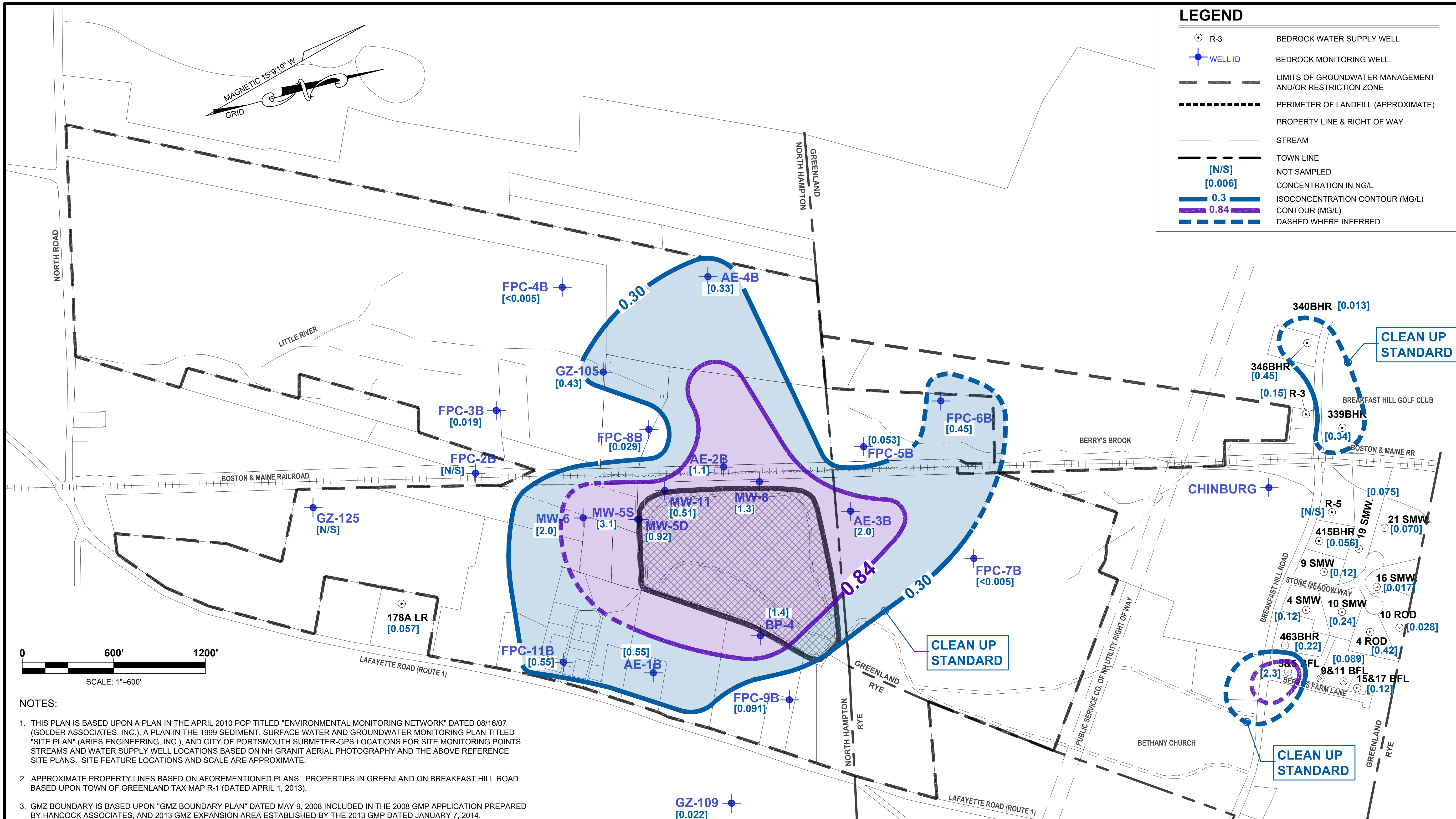
FIGURE 12

LATERAL DISTRIBUTION OF MANGANESE IN BEDROCK WELLS



NOTES:

1. THIS PLAN IS BASED UPON A PLAN IN THE APRIL 2010 POP TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07 (GOLDER ASSOCIATES, INC.), A PLAN IN THE 1999 SEDIMENT, SURFACE WATER AND GROUNDWATER MONITORING PLAN TITLED "SITE PLAN" (ARIES ENGINEERING, INC.), AND CITY OF PORTSMOUTH SUBMETER-GPS LOCATIONS FOR SITE MONITORING POINTS. STREAMS AND WATER SUPPLY WELL LOCATIONS BASED ON NH GRANIT AERIAL PHOTOGRAPHY AND THE ABOVE REFERENCE SITE PLANS. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE.
2. APPROXIMATE PROPERTY LINES BASED ON AFOREMENTIONED PLANS. PROPERTIES IN GREENLAND ON BREAKFAST HILL ROAD BASED UPON TOWN OF GREENLAND TAX MAP R-1 (DATED APRIL 1, 2013).
3. GMZ BOUNDARY IS BASED UPON "GMZ BOUNDARY PLAN" DATED MAY 9, 2008 INCLUDED IN THE 2008 GMP APPLICATION PREPARED BY HANCOCK ASSOCIATES, AND 2013 GMZ EXPANSION AREA ESTABLISHED BY THE 2013 GMP DATED JANUARY 7, 2014.

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 12	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2017-12-04	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 LATERAL EXTENT OF TOTAL MANGANESE IN BEDROCK GROUNDWATER	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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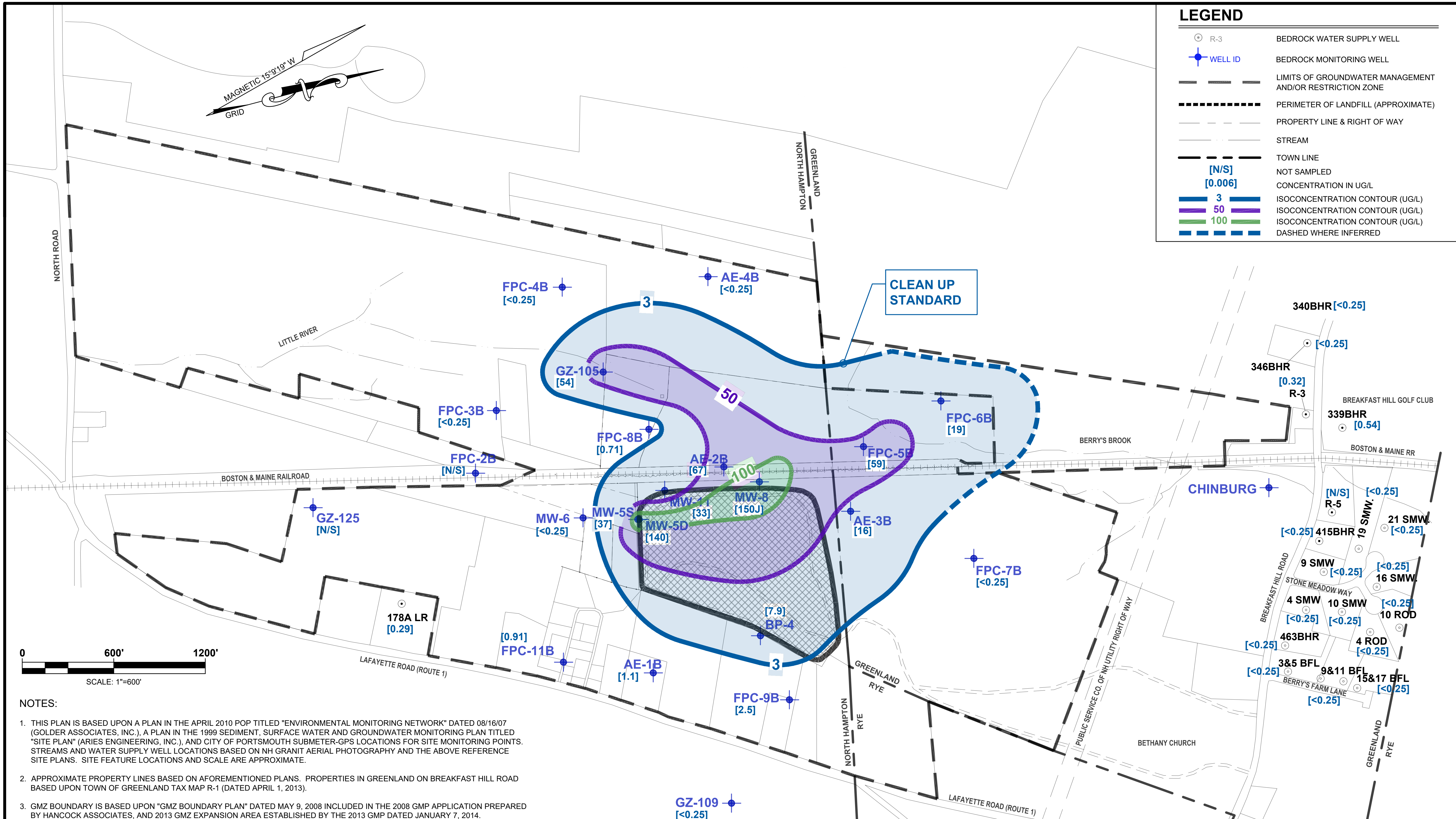
FIGURE 13

LATERAL DISTRIBUTION OF 1,4-DIOXANE IN BEDROCK WELLS



NOTES:

1. THIS PLAN IS BASED UPON A PLAN IN THE APRIL 2010 POP TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07 (GOLDER ASSOCIATES, INC.), A PLAN IN THE 1999 SEDIMENT, SURFACE WATER AND GROUNDWATER MONITORING PLAN TITLED "SITE PLAN" (ARIES ENGINEERING, INC.), AND CITY OF PORTSMOUTH SUBMETER-GPS LOCATIONS FOR SITE MONITORING POINTS. STREAMS AND WATER SUPPLY WELL LOCATIONS BASED ON NH GRANIT AERIAL PHOTOGRAPHY AND THE ABOVE REFERENCE SITE PLANS. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE.

2. APPROXIMATE PROPERTY LINES BASED ON AFOREMENTIONED PLANS. PROPERTIES IN GREENLAND ON BREAKFAST HILL ROAD BASED UPON TOWN OF GREENLAND TAX MAP R-1 (DATED APRIL 1, 2013).

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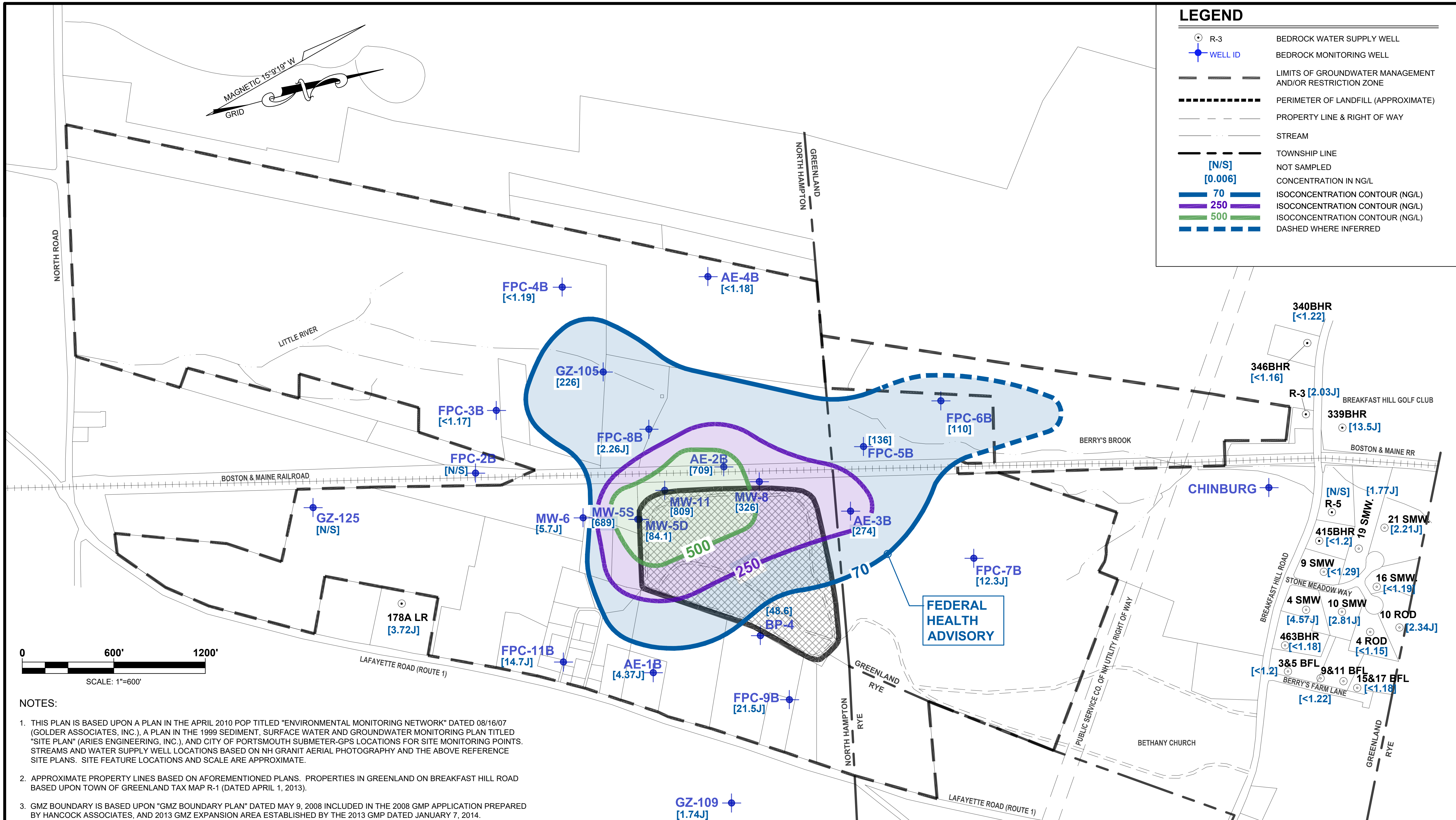
PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 13	BY: BLQ	REV:	DESCRIPTION:	CES INC Engineers • Environmental Scientists • Surveyors
		DATE: 2017-12-04	REV DATE:		
SHEET TITLE: SEPTEMBER 2017 LATERAL DISTRIBUTION OF 1,4 - DIOXANE IN BEDROCK GROUNDWATER	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:	
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:		

FIGURE 14

LATERAL DISTRIBUTION OF PFOA IN BEDROCK WELLS



NOTES:

1. THIS PLAN IS BASED UPON A PLAN IN THE APRIL 2010 POP TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07 (GOLDER ASSOCIATES, INC.), A PLAN IN THE 1999 SEDIMENT, SURFACE WATER AND GROUNDWATER MONITORING PLAN TITLED "SITE PLAN" (ARIES ENGINEERING, INC.), AND CITY OF PORTSMOUTH SUBMETER-GPS LOCATIONS FOR SITE MONITORING POINTS. STREAMS AND WATER SUPPLY WELL LOCATIONS BASED ON NH GRANIT AERIAL PHOTOGRAPHY AND THE ABOVE REFERENCE SITE PLANS. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE.

2. APPROXIMATE PROPERTY LINES BASED ON AFOREMENTIONED PLANS. PROPERTIES IN GREENLAND ON BREAKFAST HILL ROAD BASED UPON TOWN OF GREENLAND TAX MAP R-1 (DATED APRIL 1, 2013).

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PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 14	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2017-12-04	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 LATERAL EXTENT OF TOTAL PFOA IN BEDROCK GROUNDWATER	JN: 10424.008	APPROVED BY: SLY	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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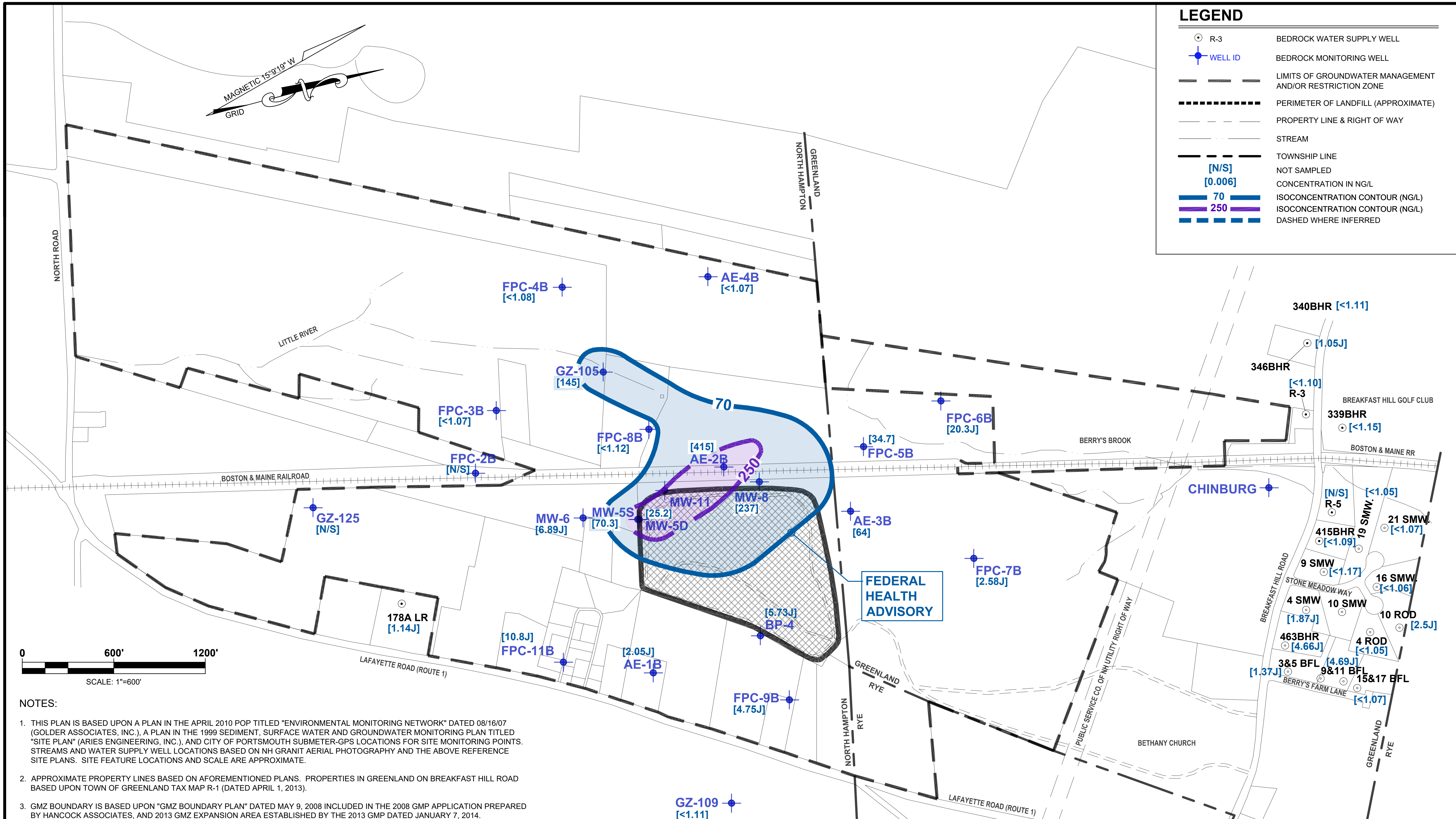
FIGURE 15

LATERAL DISTRIBUTION OF PFOS IN BEDROCK WELLS



NOTES:

1. THIS PLAN IS BASED UPON A PLAN IN THE APRIL 2010 POP TITLED "ENVIRONMENTAL MONITORING NETWORK" DATED 08/16/07 (GOLDER ASSOCIATES, INC.), A PLAN IN THE 1999 SEDIMENT, SURFACE WATER AND GROUNDWATER MONITORING PLAN TITLED "SITE PLAN" (ARIES ENGINEERING, INC.), AND CITY OF PORTSMOUTH SUBMETER-GPS LOCATIONS FOR SITE MONITORING POINTS. STREAMS AND WATER SUPPLY WELL LOCATIONS BASED ON NH GRANIT AERIAL PHOTOGRAPHY AND THE ABOVE REFERENCE SITE PLANS. SITE FEATURE LOCATIONS AND SCALE ARE APPROXIMATE.
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PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 15	BY: BLQ	REV:
		DATE: 2017-12-04	REV DATE:
SHEET TITLE: SEPTEMBER 2017 LATERAL EXTENT OF TOTAL PFOS IN BEDROCK GROUNDWATER	JN: 10424.008	APPROVED BY: SLY	ISSUE:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:

DESCRIPTION:

DESCRIPTION:

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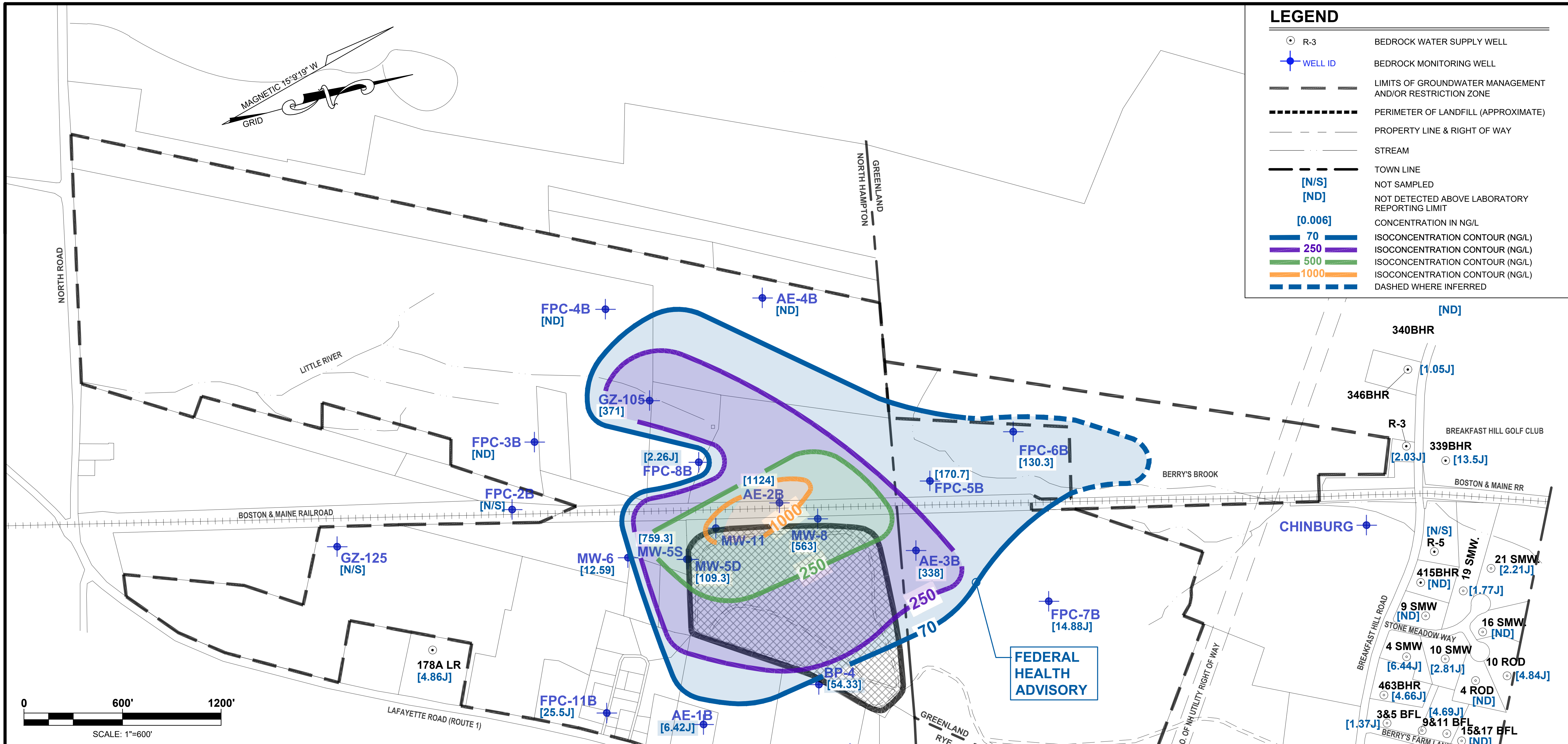
FIGURE 16

LATERAL DISTRIBUTION OF PFOA & PFOS IN BEDROCK WELLS



NOTES:

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2. APPROXIMATE PROPERTY LINES BASED ON AFOREMENTIONED PLANS. PROPERTIES IN GREENLAND ON BREAKFAST HILL ROAD BASED UPON TOWN OF GREENLAND TAX MAP R-1 (DATED APRIL 1, 2013).
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PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 16	BY: BLQ	REV:
		DATE: 2017-12-04	REV DATE:
SHEET TITLE: SEPTEMBER 2017 LATERAL EXTENT OF TOTAL PFOA + PFOS IN BEDROCK GROUNDWATER	JN: 10424.008	APPROVED BY: SLY	ISSUE:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:

DESCRIPTION:

DESCRIPTION:

CES INC
Engineers • Environmental Scientists • Surveyors

FIGURE 17

VERTICAL DISTRIBUTION OF ARSENIC IN GROUNDWATER CROSS SECTION A-A’

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION - OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN MG/L

LEGEND

0.01 ISOCONCENTRATION CONTOUR (MG/L) (CLEANUP STANDARD)

0.1 ISOCONCENTRATION CONTOUR (MG/L)

N/A SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED

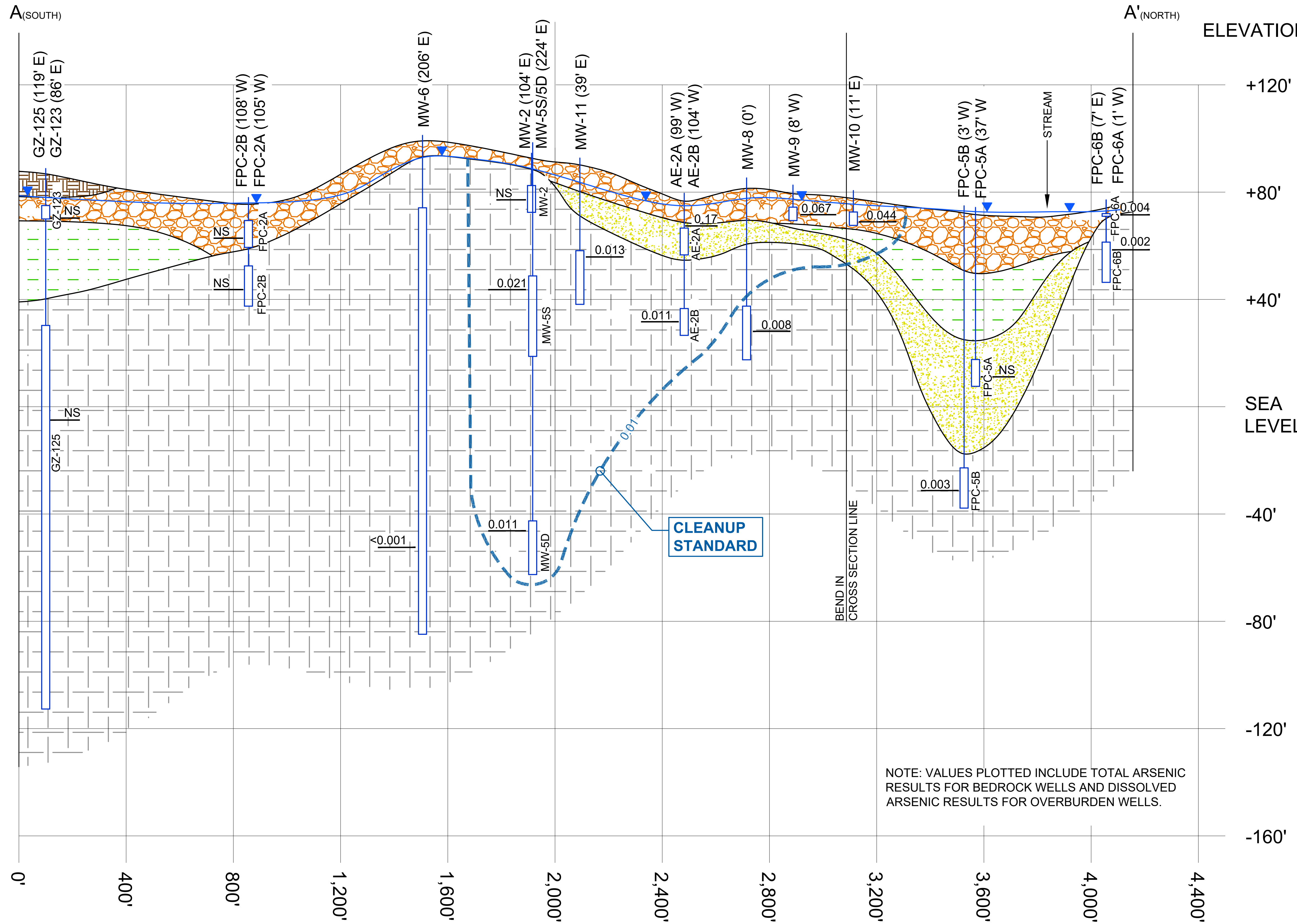
N/S NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'



NOTE: VALUES PLOTTED INCLUDE TOTAL ARSENIC RESULTS FOR BEDROCK WELLS AND DISSOLVED ARSENIC RESULTS FOR OVERBURDEN WELLS.

GEOLOGICAL CROSS SECTION A-A'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 17	BY: BLQ	REV:	DESCRIPTION:	CES INC Engineers • Environmental Scientists • Surveyors
		DATE: 2017-12-04	REV DATE:		
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF ARSENIC IN GROUNDWATER A-A'	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:	
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:		

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FIGURE 18

VERTICAL DISTRIBUTION OF ARSENIC IN GROUNDWATER CROSS SECTION B-B’

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION - OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN MG/L

LEGEND

0.01 ISOCONCENTRATION CONTOUR (MG/L) (CLEANUP STAMDARD)

0.02 ISOCONCENTRATION CONTOUR (MG/L)

N/A SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED

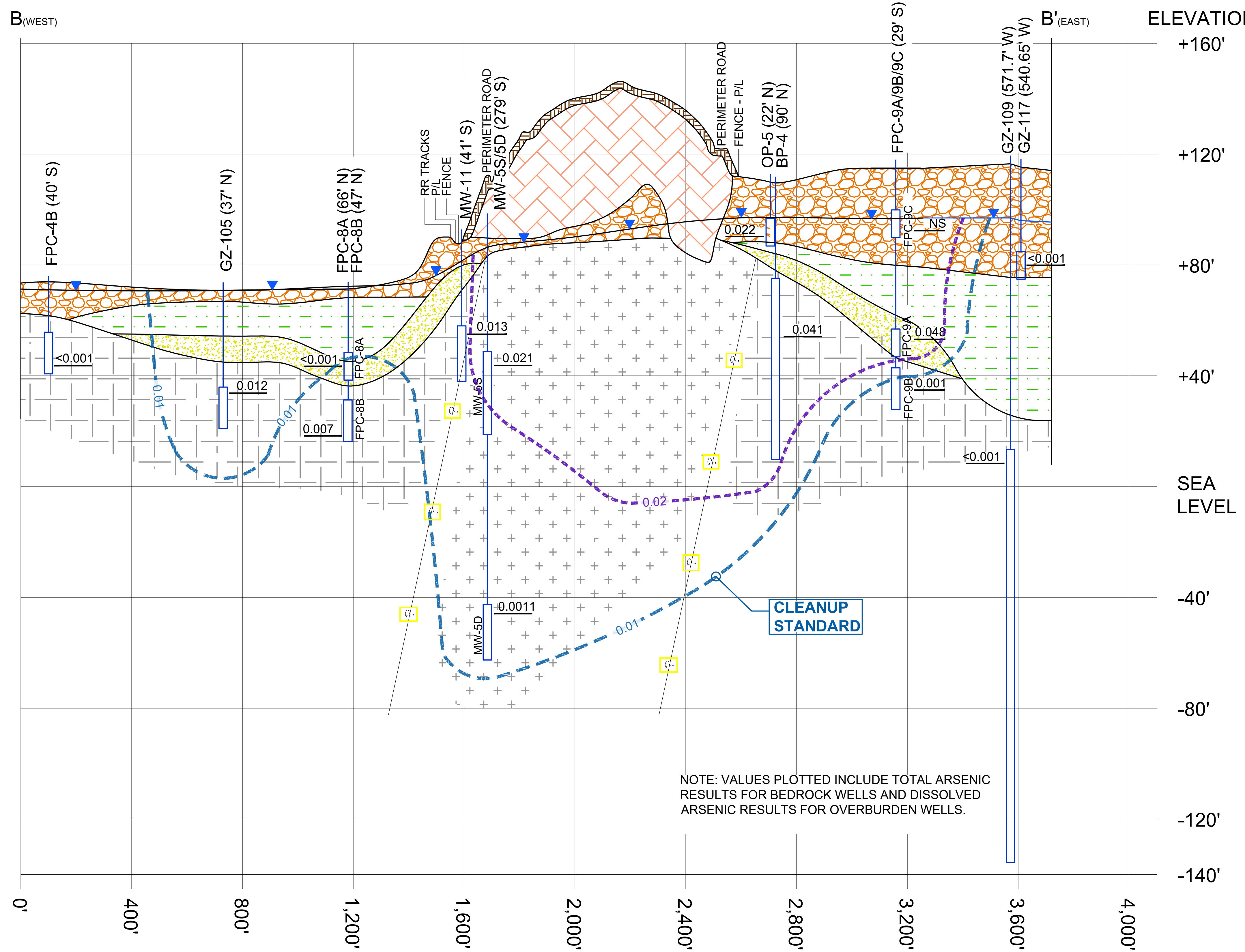
N/S NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'



GEOLOGICAL CROSS SECTION B-B'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 18	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2017-12-04	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF ARSENIC IN GROUNDWATER B-B'	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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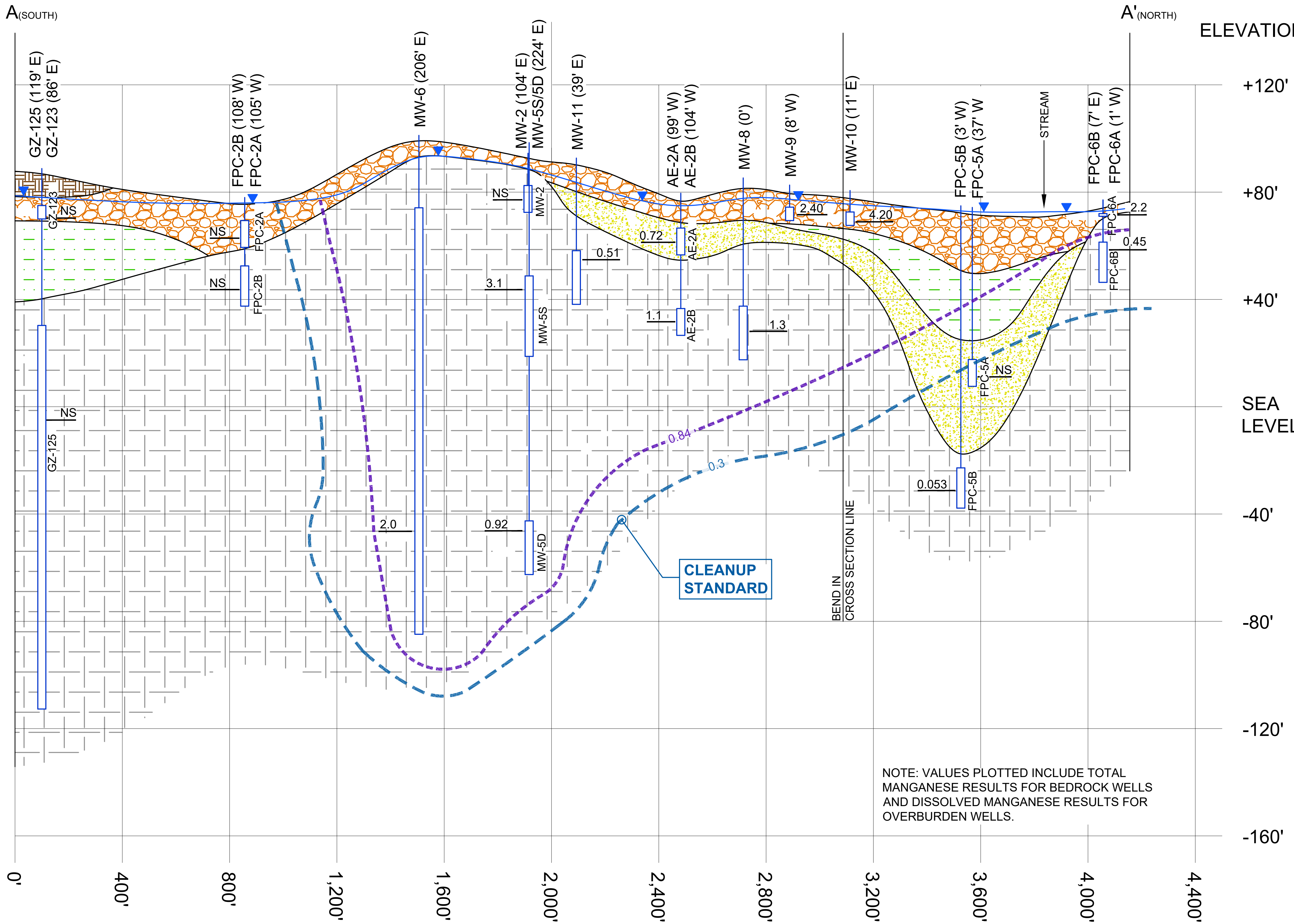
FIGURE 19

VERTICAL DISTRIBUTION OF MANGANESE IN GROUNDWATER CROSS SECTION A-A'



NOTE: VALUES PLOTTED INCLUDE TOTAL MANGANESE RESULTS FOR BEDROCK WELLS AND DISSOLVED MANGANESE RESULTS FOR OVERBURDEN WELLS.

GEOLOGICAL CROSS SECTION A-A'

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION - OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN MG/L

LEGEND

0.3 ISOCONCENTRATION CONTOUR (MG/L) (CLEANUP STANDARD)

0.84 ISOCONCENTRATION CONTOUR (MG/L)

N/A SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED

N/S NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 19	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2017-12-04	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF MANGANESE IN GROUNDWATER A-A'	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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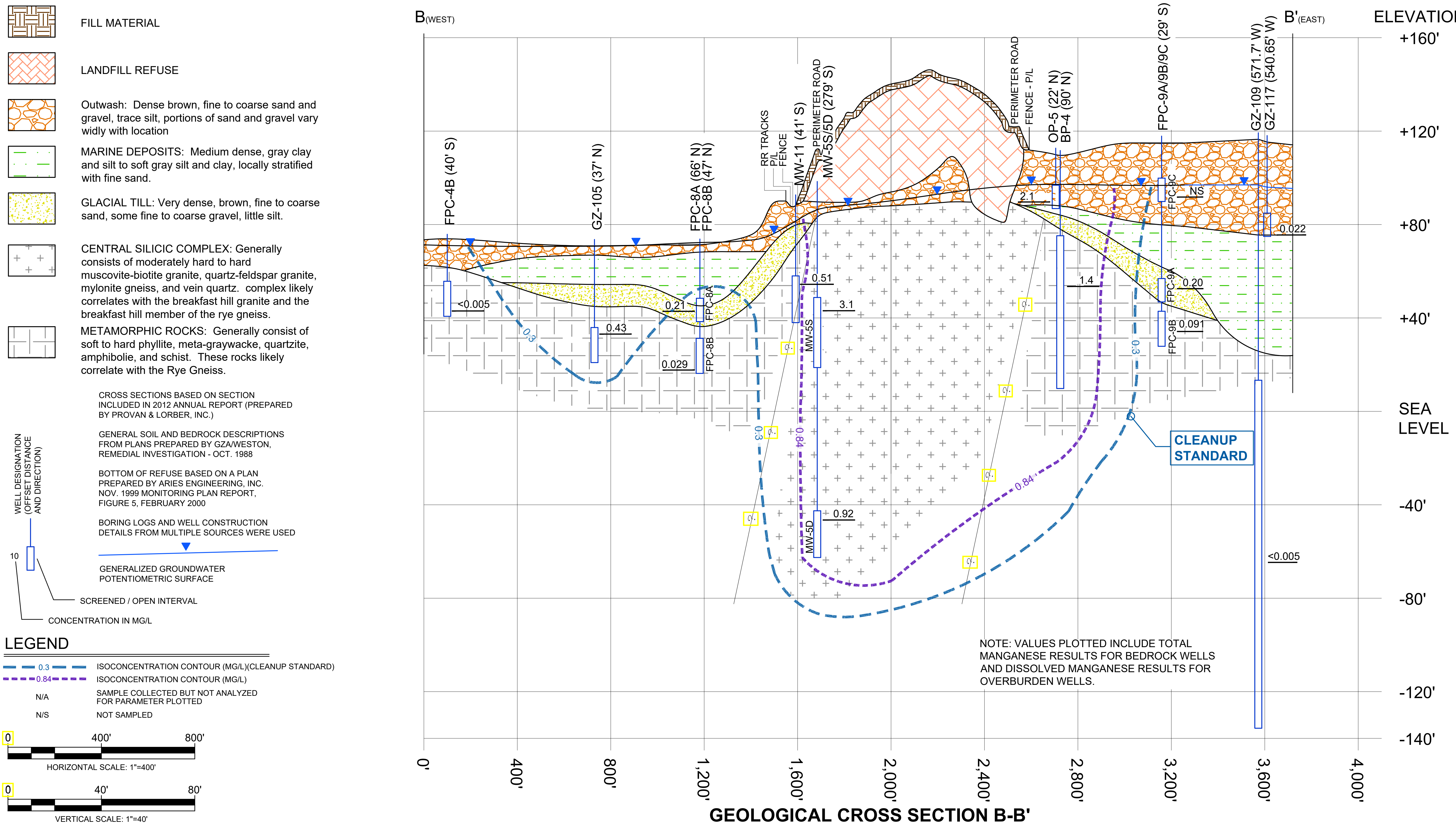
FIGURE 20

VERTICAL DISTRIBUTION OF MANGANESE IN GROUNDWATER CROSS SECTION B-B’



GEOLOGICAL CROSS SECTION B-B'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 20	BY: BLQ	REV:	DESCRIPTION:	CES INC Engineers • Environmental Scientists • Surveyors
		DATE: 2017-12-04	REV DATE:		
SHEET TITLE: SEPTEMBER 2017 VERTICAL DISTRIBUTION OF MANGANESE IN GROUNDWATER B-B'	JN: 10424.011	APPROVED BY: MAD	ISSUE:	DESCRIPTION:	
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:		

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FIGURE 21

VERTICAL DISTRIBUTION OF 1,4-DIOXANE IN GROUNDWATER CROSS SECTION A-A’

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION - OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN UG/L

LEGEND

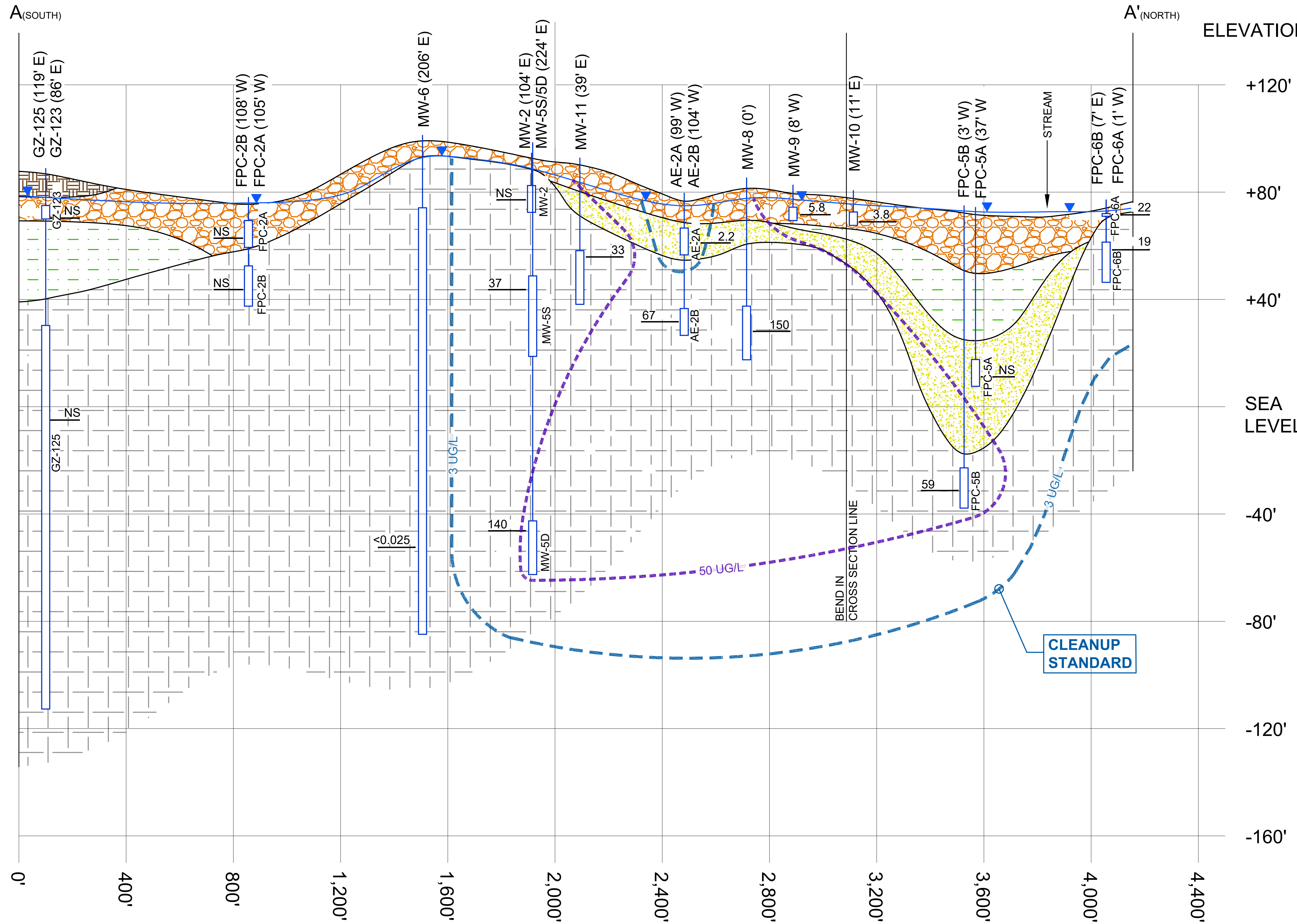
3	ISOCONCENTRATION CONTOUR (UG/L) (CLEANUP STANDARD)
50	ISOCONCENTRATION CONTOUR (UG/L)
N/A	SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED
N/S	NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'



GEOLOGICAL CROSS SECTION A-A'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 21	BY: BLQ	REV:	DESCRIPTION:	
		DATE: 2017-12-04	REV DATE:		
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF 1,4 - DIOXANE IN GROUNDWATER A-A'	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:	
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:		

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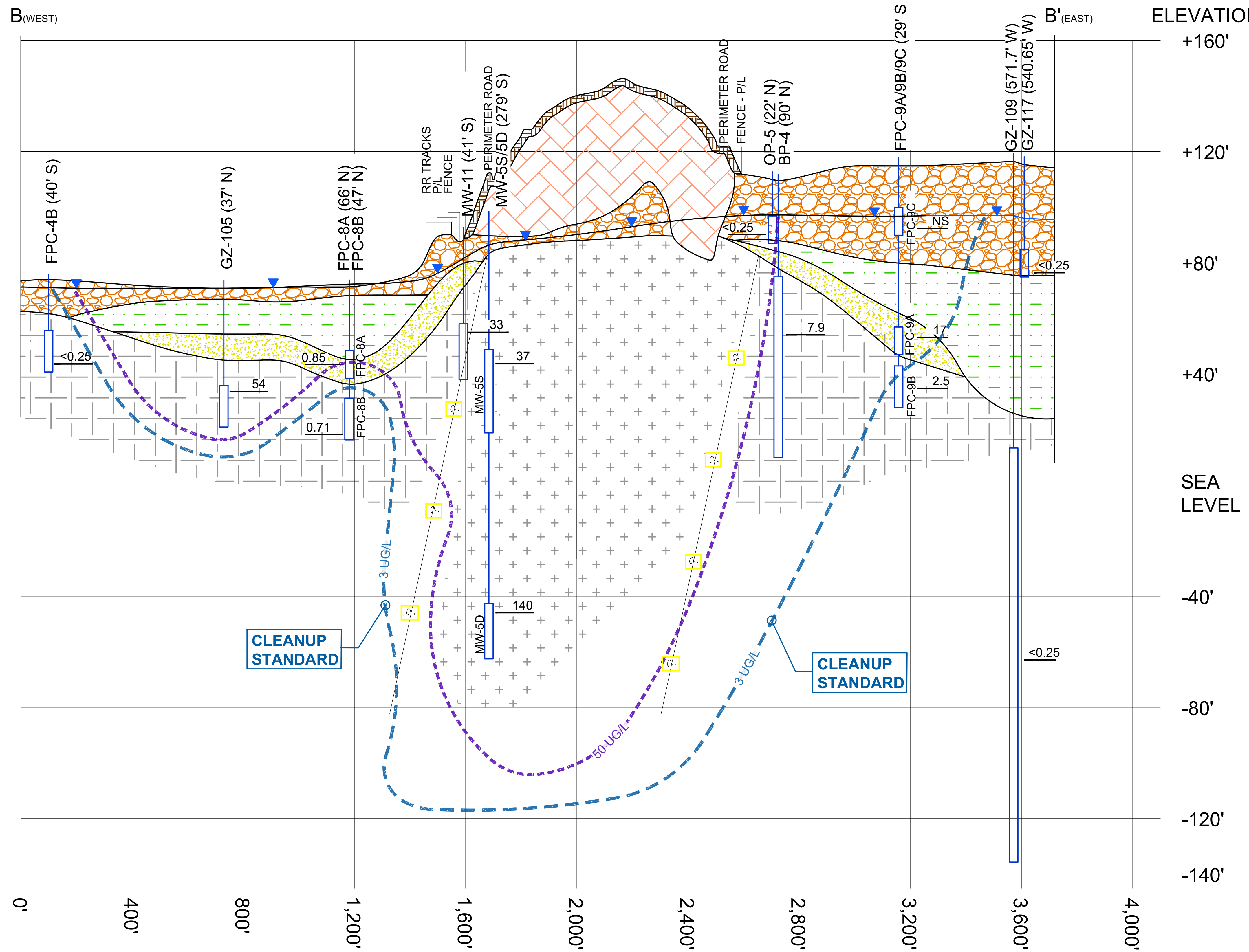
FIGURE 22

VERTICAL DISTRIBUTION OF 1,4-DIOXANE IN GROUNDWATER CROSS SECTION B-B’



GEOLOGICAL CROSS SECTION B-B'

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION - OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

SCREENED / OPEN INTERVAL

CONCENTRATION IN UG/L

LEGEND

3	ISOCONCENTRATION CONTOUR (UG/L) (CLEANUP STANDARD)
50	ISOCONCENTRATION CONTOUR (UG/L)
N/A	SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED
N/S	NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 22	BY: BLQ	REV:	DESCRIPTION:	CES INC Engineers • Environmental Scientists • Surveyors
		DATE: 2017-12-04	REV DATE:		
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF 1,4 - DIOXANE IN GROUNDWATER B-B'	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:	
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:		

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FIGURE 23

VERTICAL DISTRIBUTION OF PFOA IN GROUNDWATER CROSS SECTION A-A’

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION - OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

SCREENED / OPEN INTERVAL

CONCENTRATION IN NG/L

LEGEND

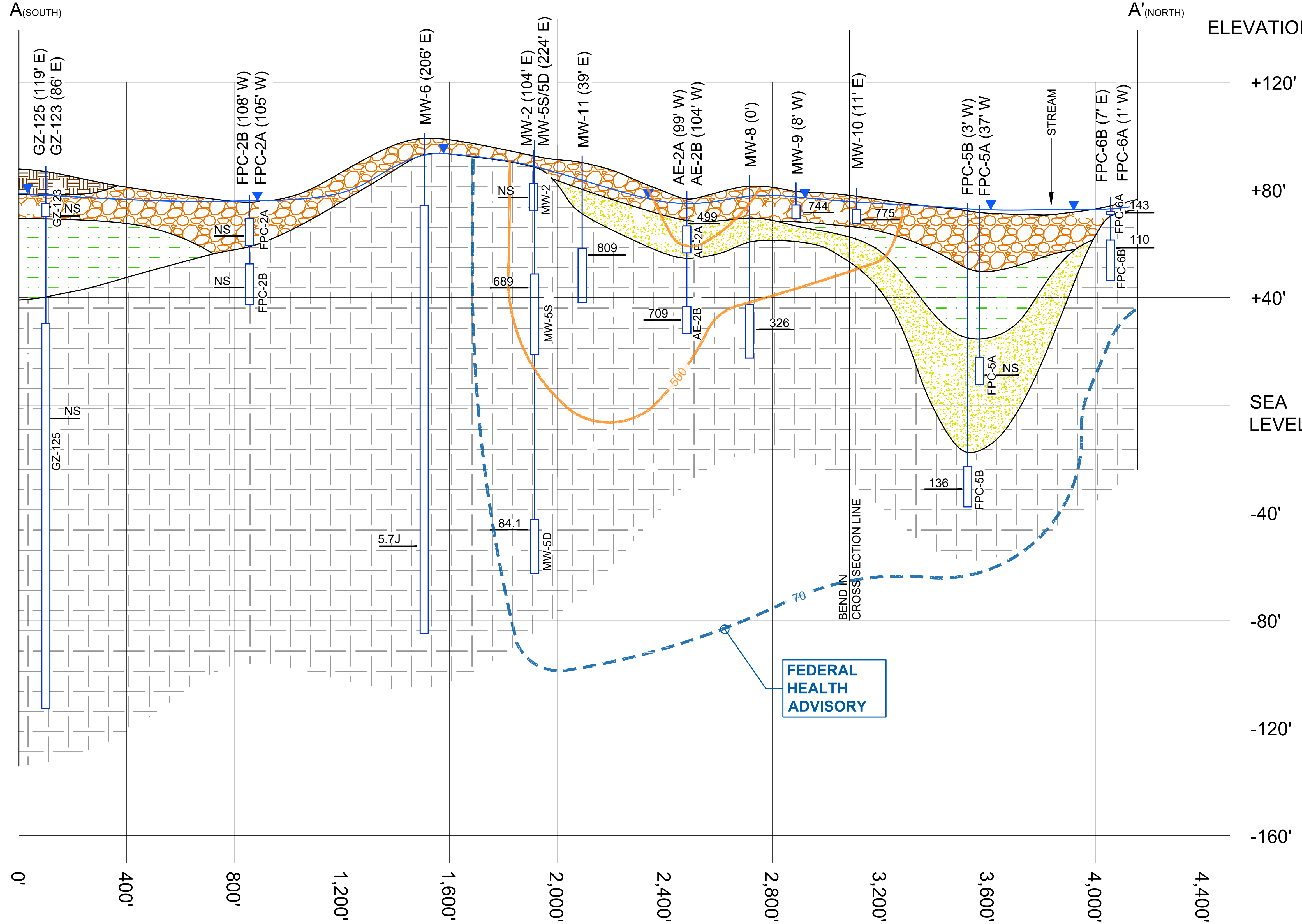
70	ISOCONCENTRATION CONTOUR (NG/L)(FEDERAL HEALTH ADVISORY)
500	ISOCONCENTRATION CONTOUR (NG/L)
N/A	SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED
N/S	NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'



GEOLOGICAL CROSS SECTION A-A'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 23	BY: BLQ	REV:
		DATE: 2017-11-07	REV DATE:
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF PFOA IN GROUNDWATER A-A'	JN: 10424.011	APPROVED BY: SLY	ISSUE:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:

DESCRIPTION:

DESCRIPTION:

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FIGURE 24

VERTICAL DISTRIBUTION OF PFOA IN GROUNDWATER CROSS SECTION B-B’

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION - OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

SCREENED / OPEN INTERVAL

CONCENTRATION IN NG/L

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

LEGEND

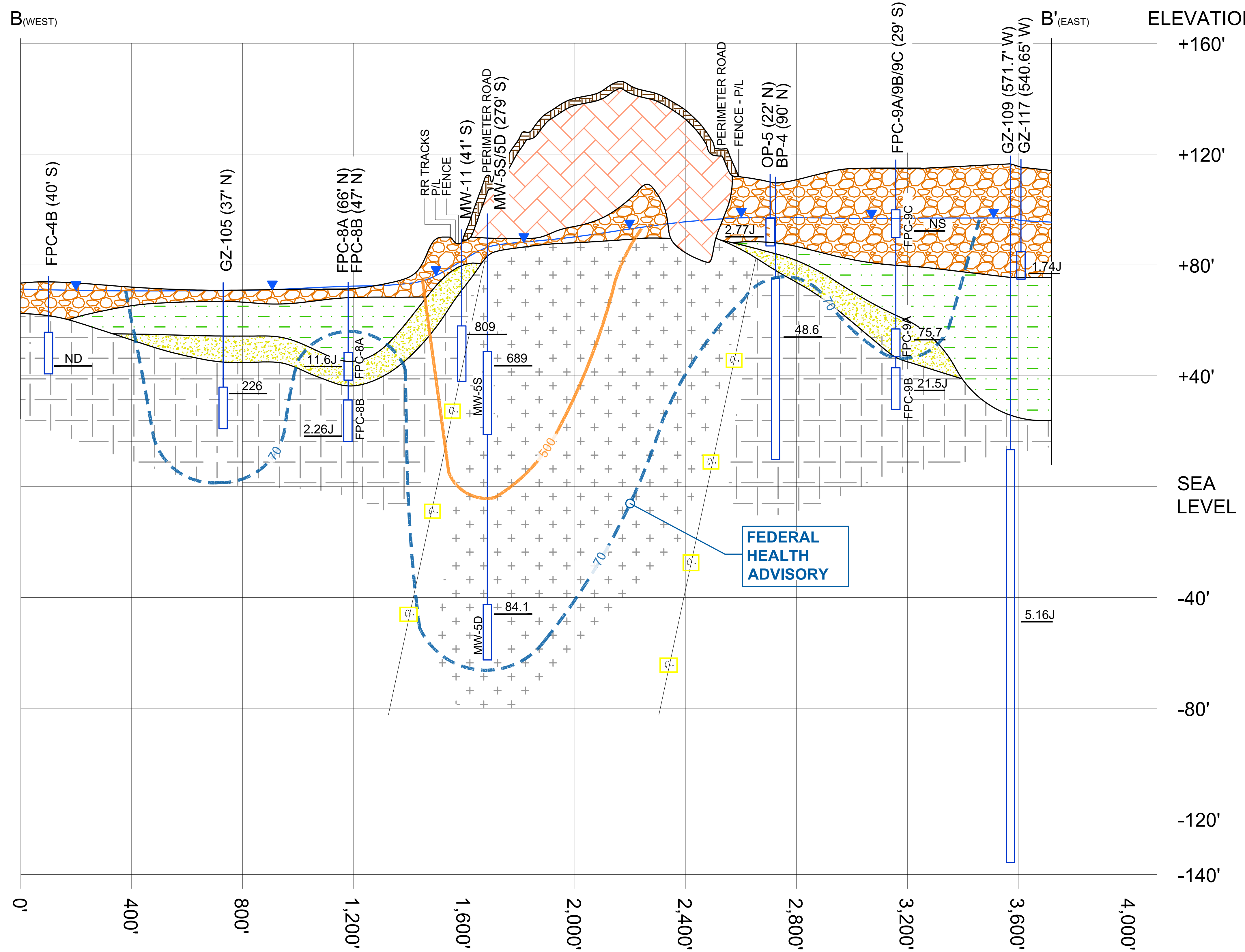
70	ISOCONCENTRATION CONTOUR (NG/L)(FEDERAL HEALTH ADVISORY)
500	ISOCONCENTRATION CONTOUR (NG/L)
N/A	SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED
N/S	NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'



GEOLOGICAL CROSS SECTION B-B'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 24	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2017-12-04	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF PFOA IN GROUNDWATER B-B'	JN: 10424.011	APPROVED BY: MAD	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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FIGURE 25

VERTICAL DISTRIBUTION OF PFOS IN GROUNDWATER CROSS SECTION A-A'

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION - OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN NG/L

LEGEND

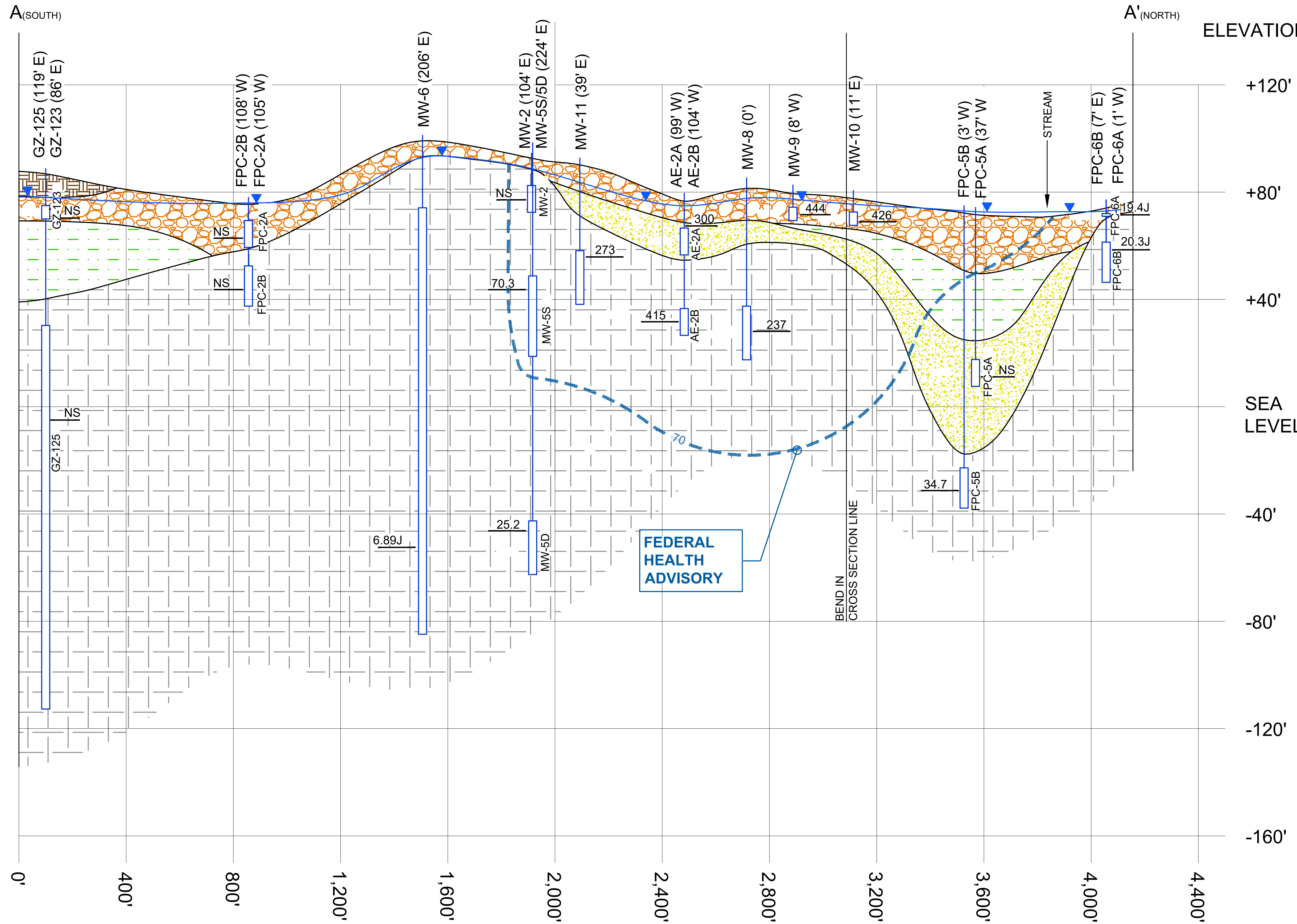
70	ISOCONCENTRATION CONTOUR (NG/L)(FEDERAL HEALTH ADVISORY)
N/A	SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED
N/S	NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'



GEOLOGICAL CROSS SECTION A-A'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 25	BY: BLQ	REV:	DESCRIPTION:
		DATE: 2017-11-07	REV DATE:	
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF PFOS IN GROUNDWATER A-A'	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:	

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FIGURE 26

VERTICAL DISTRIBUTION OF PFOS IN GROUNDWATER CROSS SECTION B-B’

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widely with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

GENERAL SOIL AND BEDROCK DESCRIPTIONS FROM PLANS PREPARED BY GZA/WESTON, REMEDIAL INVESTIGATION - OCT. 1988

BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

SCREENED / OPEN INTERVAL

CONCENTRATION IN NG/L

LEGEND

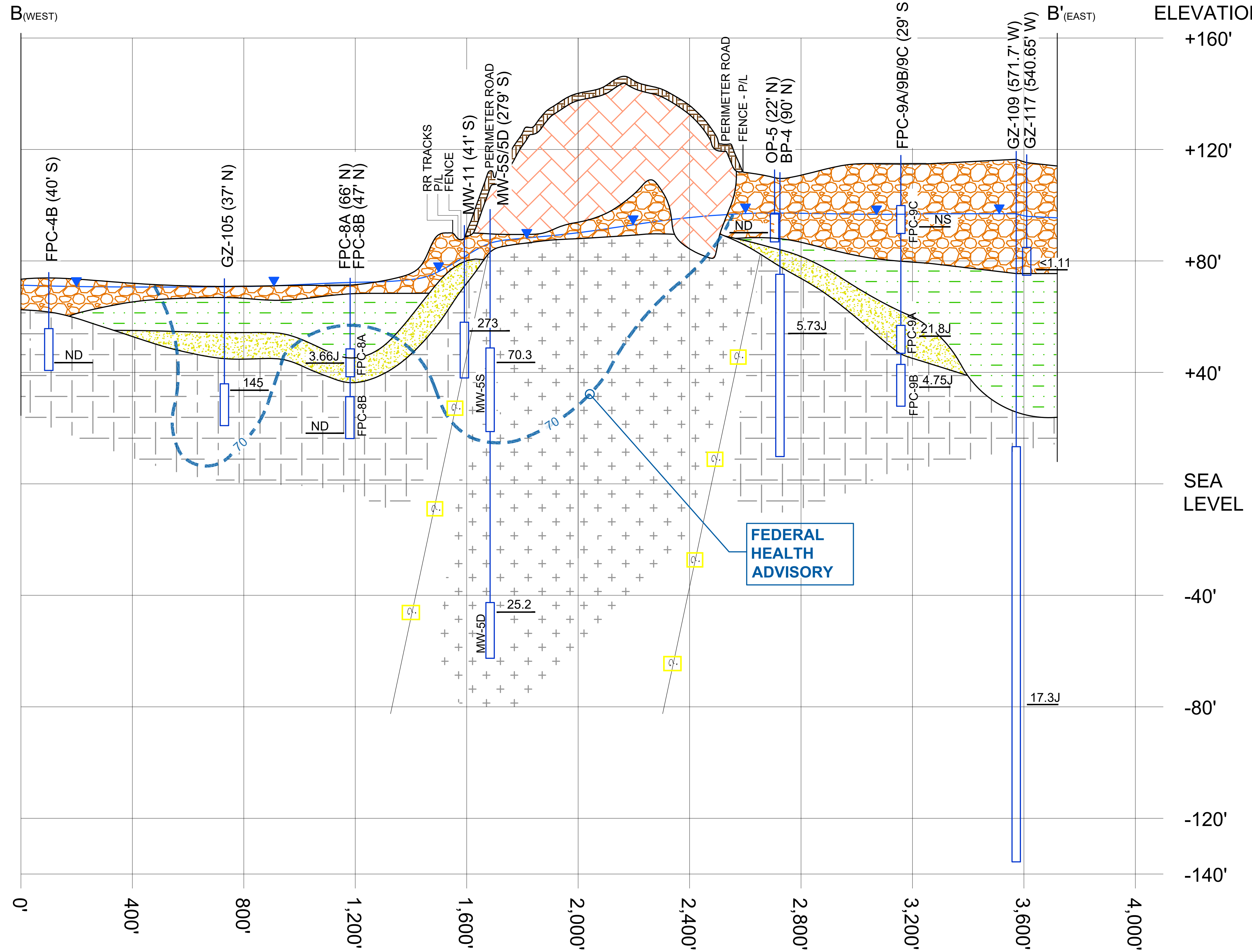
70	ISOCONCENTRATION CONTOUR (NG/L)(FEDERAL HEALTH ADVISORY)
N/A	SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED
N/S	NOT SAMPLED
ND	NOT DETECTED ABOVE LABORATORY REPORTING LIMIT

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'



GEOLOGICAL CROSS SECTION B-B'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 26	BY: BLQ	REV:
		DATE: 2017-12-04	REV DATE:
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF PFOS IN GROUNDWATER B-B'	JN: 10424.011	APPROVED BY: MAD	ISSUE:
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:

DESCRIPTION:

DESCRIPTION:

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FIGURE 27

VERTICAL DISTRIBUTION OF PFOA & PFOS IN GROUNDWATER CROSS SECTION A-A’

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widly with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, potassium-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

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BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

SCREENED / OPEN INTERVAL

CONCENTRATION IN NG/L

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

LEGEND

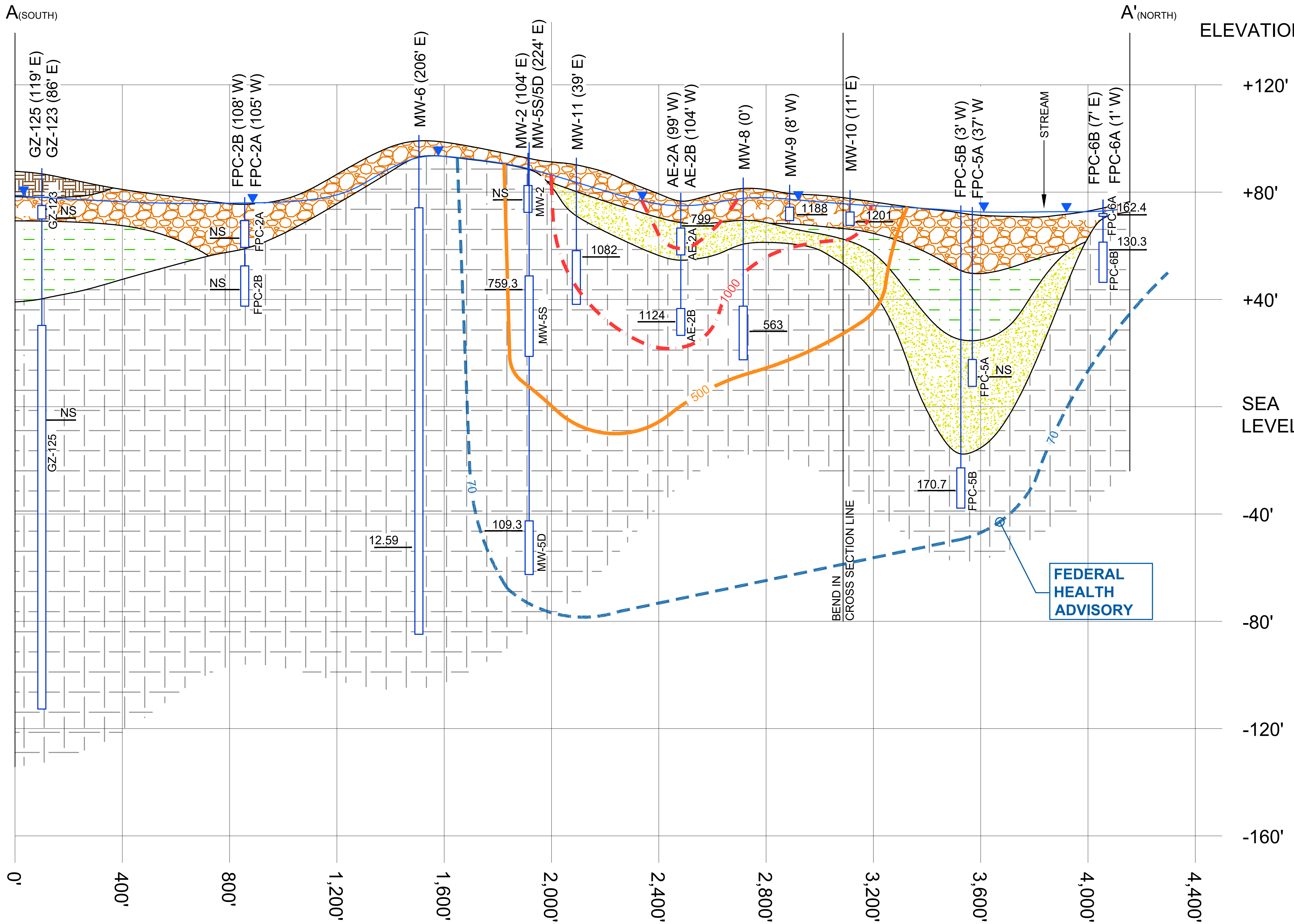
70	ISOCONCENTRATION CONTOUR (NG/L)(FEDERAL HEALTH ADVISORY)
500	ISOCONCENTRATION CONTOUR (NG/L)
1000	ISOCONCENTRATION CONTOUR (NG/L)
N/A	SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED
N/S	NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'



GEOLOGICAL CROSS SECTION A-A'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 27	BY: BLQ	REV:	DESCRIPTION:	
		DATE: 2017-11-07	REV DATE:		
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF PFOA & PFOS IN GROUNDWATER A-A'	JN: 10424.011	APPROVED BY: SLY	ISSUE:	DESCRIPTION:	
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:		

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FIGURE 28

VERTICAL DISTRIBUTION OF PFOA & PFOS IN GROUNDWATER CROSS SECTION B-B'

FILL MATERIAL

LANDFILL REFUSE

Outwash: Dense brown, fine to coarse sand and gravel, trace silt, portions of sand and gravel vary widely with location

MARINE DEPOSITS: Medium dense, gray clay and silt to soft gray silt and clay, locally stratified with fine sand.

GLACIAL TILL: Very dense, brown, fine to coarse sand, some fine to coarse gravel, little silt.

CENTRAL SILICIC COMPLEX: Generally consists of moderately hard to hard muscovite-biotite granite, quartz-feldspar granite, mylonite gneiss, and vein quartz. complex likely correlates with the breakfast hill granite and the breakfast hill member of the rye gneiss.

METAMORPHIC ROCKS: Generally consist of soft to hard phyllite, meta-graywacke, quartzite, amphibolie, and schist. These rocks likely correlate with the Rye Gneiss.

CROSS SECTIONS BASED ON SECTION INCLUDED IN 2012 ANNUAL REPORT (PREPARED BY PROVAN & LORBER, INC.)

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BOTTOM OF REFUSE BASED ON A PLAN PREPARED BY ARIES ENGINEERING, INC. NOV. 1999 MONITORING PLAN REPORT, FIGURE 5, FEBRUARY 2000

BORING LOGS AND WELL CONSTRUCTION DETAILS FROM MULTIPLE SOURCES WERE USED

GENERALIZED GROUNDWATER POTENTIOMETRIC SURFACE

WELL DESIGNATION (OFFSET DISTANCE AND DIRECTION)

10

SCREENED / OPEN INTERVAL

CONCENTRATION IN NG/L

LEGEND

70 ISOCONCENTRATION CONTOUR (NG/L)(FEDERAL HEALTH ADVISORY)

500 ISOCONCENTRATION CONTOUR (NG/L)

1000 ISOCONCENTRATION CONTOUR (NG/L)

N/A SAMPLE COLLECTED BUT NOT ANALYZED FOR PARAMETER PLOTTED

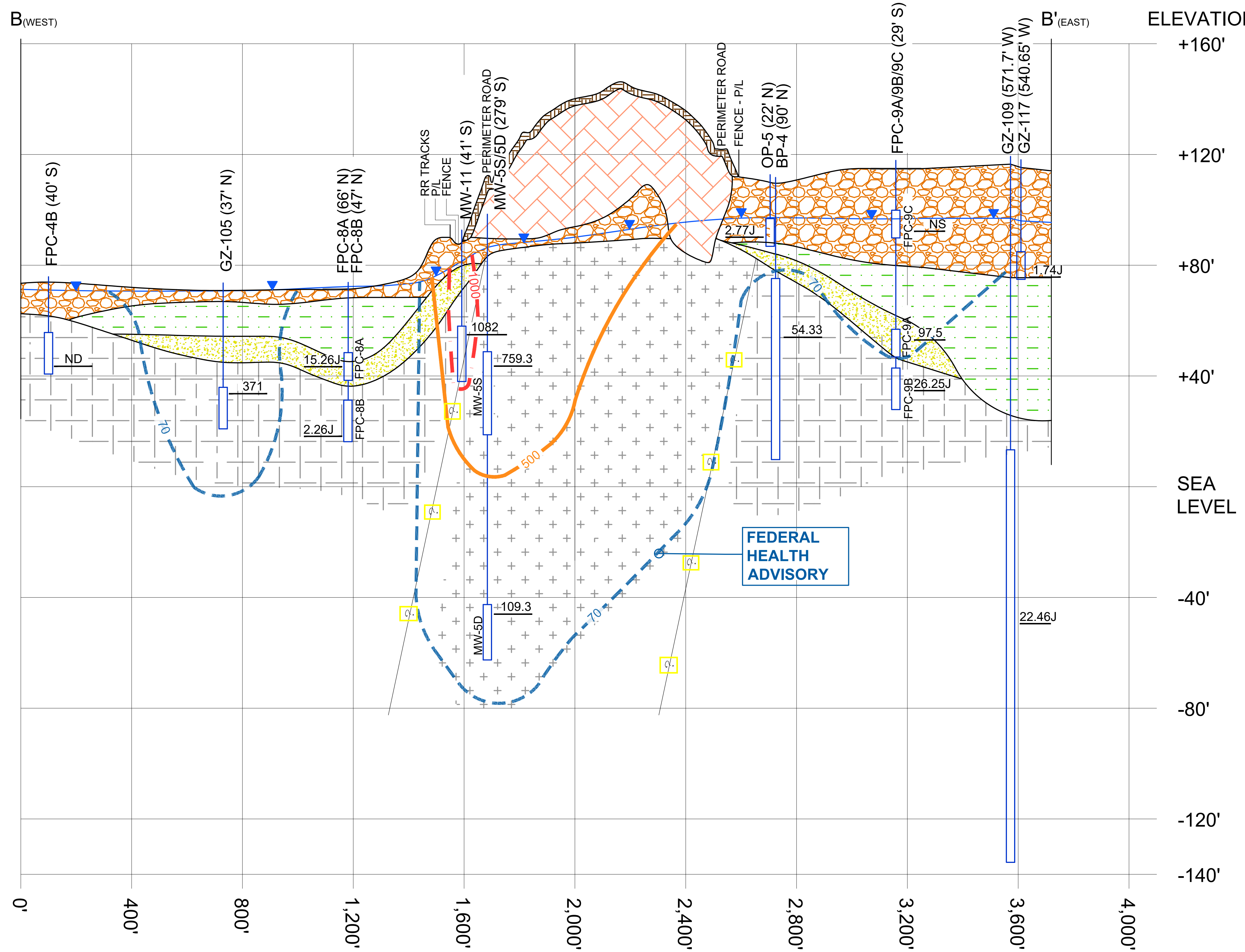
N/S NOT SAMPLED

0 400' 800'

HORIZONTAL SCALE: 1"=400'

0 40' 80'

VERTICAL SCALE: 1"=40'



GEOLOGICAL CROSS SECTION B-B'

PROJECT TITLE: COAKLEY LANDFILL SUPERFUND SITE NORTH HAMPTON & GREENLAND, NEW HAMPSHIRE	DWG: FIGURE 28	BY: BLQ	REV:	DESCRIPTION:	
		DATE: 2017-12-04	REV DATE:		
SHEET TITLE: SEPTEMBER 2017 DISTRIBUTION OF PFOA & PFOS IN GROUNDWATER B-B'	JN: 10424.011	APPROVED BY: MAD	ISSUE:	DESCRIPTION:	
	SCALE: AS SHOWN	CHECKED BY: SLY	ISSUE DATE:		

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TABLES

CES INC

TABLE 1

GROUNDWATER ELEVATION DATA

TABLE 1

Summary of Groundwater Elevation Data

2017 Annual Summary Report

Coakley Landfull Superfund Site

North Hampton, New Hampshire

MONITORING WELL IDENTIFICATION	Ref. Pt Elev. (FT. NGVD)	Screened Interval FT.	Apr-93 GW. EL. FT.	Dec-96 GW. EL. FT.	Apr-97 GW. EL. FT.	Sep-97 GW. EL. FT.	Dec-97 GW. EL. FT.	Jun-98 GW. EL. FT.	Aug-98 GW. EL. FT.	Apr-99 GW. EL. FT.	Aug-99 GW. EL. FT.	Nov-99 GW. EL. FT.	Apr-00 GW. EL. FT.	Aug-00 GW. EL. FT.	Nov-00 GW. EL. FT.	Apr-01 GW. EL. FT.	Aug-01 GW. EL. FT.	Jun-02 GW. EL. FT.	Aug-02 GW. EL. FT.	Aug-03 GW. EL. FT.	Aug-04 GW. EL. FT.	Aug-05 GW. EL. FT.	Aug-06 GW. EL. FT.	Nov-07 GW. EL. FT.	Aug-08 GW. EL. FT.	Aug-09 GW. EL. FT.	Aug-10 GW. EL. FT.	Aug-11 GW. EL. FT.	Aug-12 GW. EL. FT.	Aug-13 GW. EL. FT.	Sep-14 GW. EL. FT.	Sep-15 GW. EL. FT.	May-16 GW. EL. FT.	Apr-17 GW. EL. FT.	Sep-17 GW. EL. FT.
Operable Unit 1																																			
BP-4	111.70	33.6-99.0		98.94	97.83	96.07	95.84	99.55	97.03	97.04	95.26	95.93	97.1	96.93	96.03	99.37	96.29	97.27	96.26	96.51	96.89	96.34	97.71	95.72	97.52	99.00	96.55	96.75	96.48	97.39	96.15	96.35	97.35	99.14	97.07
MW-2	94.54	10-20															86.75	89.00						88.61	88.95	88.40	87.88	88.79	86.85	87.69	85.69	87.14	88.19	89.27	88.20
MW-4	129.12	28-38	101.52							98.41	95.94	96.78	97.92	97.61	96.65	100.33	96.88	98.01	96.99	97.07	97.35	96.71	98.12	96.17	97.98	98.43	96.93	97.20	96.90	97.75	96.49	96.72	97.71	99.65	97.34
MW-5S (Note 4)	101.96	48-78	93.69							91.89	87.81	90.96	91.5	91.11	91.24	92.24	89.33	91.46	88.78	88.71	90.89	88.54	91.42	89.54	91.47	90.99	89.70	89.89	89.02	90.06	88.33	88.76	90.20	91.31	89.79
MW-5D (Note 4)	99.72	139-159								91.22	87.17	90.1	90.74	89.92	90.31	91.72	88.60	90.60	88.12	89.22	89.96	88.02	89.82	88.61	90.42	90.35	88.96	89.11	88.25	89.52	87.70	87.93	89.62	90.91	89.12
MW-6	101.15	25-184	93.4	93.84	93.44	90.04	92.25	93.44	91.33	92.55	88.03	91.98	92.52	92.20	92.32	93.23	89.79	92.50	89.16	90.09	92.13	89.01	92.46	90.52	92.42	91.93	90.58	90.73	89.66	90.40	88.78	89.71	90.70	91.86	90.57
MW-8 (Note 4)	85.02	44-65		81.1	79.46	78.48	78.07	78.71	76.66	78.32	75.04	77.63	78.09	77.70	78.22	78.33	76.02	77.93	75.64	76.32	77.58	75.66	77.90	76.61	78.20	77.61	76.35	77.26	75.70	77.42	75.25	75.21	77.11	78.27	77.16
MW-9	82.62	5-10		77.97	78.03	75.87	76.06	77.16	74.47	75.82	73.42	75.46	76.09	76.00	76.86	76.88	74.10	75.74	73.81	73.28	76.13	73.94	75.71	75.80	76.88	75.35	74.64	77.15	74.15	75.22	73.84	74.15	75.15	77.28	75.87
MW-10	80.60	5-10		74.56	74.67	73.96	74.07	74.68	73.17	74.51	72.78	74.57	74.63	74.83	75.06	75.22	73.93	74.91	73.45	74.20	74.93	73.99	74.71	74.95	74.86	74.50	74.21	75.46	74.22	74.50	74.05	74.80	74.62	75.10	74.77
MW-11	92.70	32-52		87.21	85.36	83.56	83.81	83.69	81.77	83.42	79.17	82.42	82.8	82.35	82.40	83.09	80.59	82.67	80.11	81.24	82.26	79.85	82.89	81.07	82.99	82.58	81.08	81.54	80.36	82.10	79.46	79.89	82.15	83.14	81.82
OP-2 (Note 4)	100.00	7-12	91.44	95.86	95.4				92.85	93.62	91.03	92.39	93.37	93.27	92.75	87.25	92.00	93.49	91.85	92.26	93.05	91.94	93.80	92.28	94.04	93.98	92.50	93.17	92.52	77.42	92.28	92.53	93.84	95.34	93.67
OP-5	112.68	13-23	94.92	99.26	98.28	96.59	96.41	100.41	100.41	97.39	95.84	96.41	97.58	97.33	96.40	107.29	97.54	97.72	96.82	96.98	97.31	96.78	98.03	96.04	97.81	98.28	96.91	97.22	96.86	97.72	96.48	96.67	97.61	99.45	97.33
Operable Unit 2																																			
AE-1A	127.00	54-64								97.95	95.55	96.21	97.37	97.23	96.34	99.67	96.54	97.54	96.53	96.67	97.05	97.35	98.10	95.89	97.74	98.19	96.74	97.00	96.63	97.53	96.32	96.55	97.48	99.39	97.31
AE-1B	126.80	75-85								97.91	95.51	96.13	97.35	97.19	96.31	99.65	96.43	97.51	96.51	96.65	97.09	96.49	98.09	95.87	97.73	97.98	96.55	96.93	96.61	97.51	96.30	96.53	96.45	99.38	97.30
AE-2A	79.60	10-20									72.49	75.74	75.71	75.67	76.03	75.69	73.58	75.66	72.98	73.75	75.19	73.18	75.70	74.69	75.81	75.29	73.76	75.00	73.52	74.70	72.92	73.32	75.29	75.89	74.75
AE-2B	79.50	40-50									72.59	75.79	75.79	75.44	76.04	75.78	73.49	75.65	73.16	74.42	75.33	73.60	75.61	74.22	75.94	76.02	74.35	74.26	74.01	75.30	73.49	73.56	75.65	76.46	75.31
AE-3A	86.10	??-17.5								77.47	76.64	77.74	77.56	77.99	77.92	77.80	77.05	77.70	76.86	76.30	77.90	77.14	78.02	77.90	77.98	78.68	77.30	78.30	77.04	77.50	76.75	77.03	77.54	77.85	77.42
AE-3B	87.30	28-40								78.55	77.19	78.38	78.35	78.47	78.61	78.64	78.30	78.49	77.47	77.90	78.58	76.86	78.66	78.47	78.50	78.32	77.76	78.84	77.50	77.84	77.22	77.45	81.09	78.68	77.89
AE-4A	77.20	5-15																			73.47	70.75	73.75	72.91	73.10	73.20	71.49	73.10	70.80	72.29	70.42	71.20	72.99	73.74	72.64
AE-4B	77.50	34-44																			73.42	70.51	73.30	72.28	73.61	73.01	71.10	72.18	70.58	72.12	70.26	70.55	72.92	73.83	72.01
FPC-2A	78.40	6-16											75.69	76.70	76.98	NR		76.66	78.40	76.24	76.31	75.66	76.32	75.90	76.30	76.12	75.62	75.98	75.41	75.89	75.02	75.36	75.39	75.86	75.50
FPC-2B	77.98	22.5-37.5											77.47	77.30	77.71	77.78		77.38	76.37	76.81	77.28	76.45	77.30	76.90	77.46	77.26	76.45	74.94	76.51	75.22	76.24	75.18	77.00	77.45	76.97
FPC-3A	73.17	62-72	70.91							70.91																								71.02	70.58
FPC-3B	72.22	80.5-95.5	71.27							70.97																								70.42	70.23
FPC-3C	72.36	19.5-28.5	71.16							70.86																								71.03	70.61
FPC-4B	75.83	18-33	71.83																	69.96	71.58	68.21	71.63	70.95	71.81	71.24	69.80	71.01	69.51	70.43	68.98	69.76	71.15	71.95	70.76
FPC-5A	74.30	54-64	75.01	74.44	74.44	73.94		74.44	73.29	74.14	72.2	73.93	73.9	73.98	74.18	74.14	73.02	73.10	73.03	73.10	74.30	72.18	73.50	73.50	73.73	73.37	72.73	72.91	72.05	72.11			NM	NM	NM
FPC-5B	74.90	95-110	74.85	74.81	74.81	73.91	74.21	74.81	73.3	74.6	72.38	74.48	74.25	74.60	74.77	74.70	73.43	70.96	73.15	74.23	74.40	73.19	74.66	74.50	74.85	74.46	73.74	74.33	72.95	73.64	72.90	73.39	74.05	74.35	73.85
FPC-6A (Note 5)	79.20	3.5-4.5	73.23							72.74		72.84	72.85	72.85	73.11	73.01		72.65			75.03	72.91	75.03	74.58	75.22	74.42	70.88	71.87	70.77	71.22	70.12	70.52	72.18	72.71	71.81
FPC-6B	77.10	13-28	73.20							72.81	69.86	72.94		72.09	73.21	73.14	70.88	72.33	70.30	71.94	70.32	68.37	70.47	70.19	72.93	72.35	71.26	72.35	71.06	71.60	70.49	71.24	72.65	73.18	72.17
FPC-7A	82.08	16.7-21.7	81.63							81.36										80.12	80.99	80.03	81.46	81.30	81.49	81.16	80.39	81.10	80.20	80.73	79.78	80.46	81.17	81.44	80.85
FPC-7B	82.33	29.8-44.8	80.53							80.93										79.82	80.72	79.69	81.02	79.43	81.20	80.87	80.14	80.82	79.95	80.42	79.54	80.20	80.94	81.42	80.61
FPC-8A	73.80	23-33	73.85	73.67	73.65	71.49	73.15	73.49	71.01	73.04	69.23	72.93	72.93	72.88	73.34	73.20	71.06	72.99	70.36	71.26	72.86	70.63	73.01	72.20	73.09	72.73	71.62	72.46	71.31	72.60	70.75	71.32	72.75	73.17	72.30
FPC-8B	73.60	40-55	72.83	73.52	73.49	71.44	73.04	73.33	70.84	72.88	69.14	72.77	72.78	72.63	73.18	72.99	70.93	72.79	70.07	71.22	72.69	70.58	72.83	72.03	72.00	72.68	71.10	72.28	71.16	72.40	70.61	71.19	72.59	72.96	72.15
FPC-9A	117.57	58-68	99.87							97.32	95.02	95.72	96.92	96.75	95.90	99.22	96.25	97.05	96.02	96.27	96.40	95.83	97.59	95.48	97.44	97.90	96.37	96.58	96.18	97.23	95.98	96.18	97.20	99.10	97.00
FPC-9B	117.87	72-87	99.99							97.81	95.07	95.79	96.98	96.83	95.99	99.28	96.15	97.08	96.11	96.37				95.14	97.41	97.93	96.42	96.96	96.21	97.22	96.03	96.18	97.18	99.13	97.02
FPC-9C	117.75	15-25	100.45							97.87	95.77	96.33		97.25	96.50	99.62		97.52		96.75				96.08	97.62	98.10	96.75	96.65	96.78	97.69	96.53	96.84	97.58	99.25	97.37
FPC-11A	117.95	47-52	100.4							97.7										96.65	97.01	96.51	97.71	95.81	97.58	97.95	96.50	96.68	96.38	97.45	96.09	96.36	97.24	99.14	97.08
FPC-11B	117.90	58-73	96.5							97.74										96.70	96.90	96.34	97.69	95.54	97.57	97.89	96.56	97.10	96.37	97.30	96.07	96.29	97.19	99.13	97.04
FPC-11C (Note 6)	118.10	18-33																											96.58	97.44	96.23	96.82	97.39	99.38	97.35
GZ-105	73.60	35-50	66.42							70.86	67.46	70.77	70.78	69.82	71.16	71.02	69.31	70.83	68.45	69.71	71.09	69.28	70.91	70.68	71.05	70.78	69.83	70.71	69.47	70.70	68.98	70.03	70.69	71.08	70.58
GZ-109	119.36	103-252	99.49	98.8	98.01	95.84	95.68	99.08	96.99	97.39	94.91	94.59	96.81									NM													97.05
GZ-117	118.10																																		96.13
GZ-123	87.49	9.5-16.5																						76.91	77.90	78.28	77.05	77.42	77.01	77.24	76.76	77.36	77.61	79.53	77.54
GZ-125	88.77	57-200																						80.35	81.73	81.87	80.36	80.32	80.07	80.79	79.76	80.03	80.89	82.93	80.97

NOTES:

1. Shaded data denotes a bedrock monitoring well.
2. A blank indicates data was not collected.
3. GW.EL. indicates groundwater elevation and FT. indicates measurements were in feet.
4. Summit determined that Reference Point Elevations for MW-5S, MW-5D, MW-8 and OP-2 were incorrect for data collected since 1999. Correct measuring point elevations were identified on an as built survey plan prepared by Richard D. Bartlett and Associates, Inc. dated September 1998. Surveyed "top of cap" elevations for MW-5S, MW-5D and MW-8 were adjusted to top of PVC using field measurements (significant settling is not likely at these wells as they are 2-inch diameter wells install in 6 inch diamter boreholes through 6-inch diameter metal casings. A PVC casing elevation was listed for OP-2. Groundwater elevation data since April 1999 adjustments are as follows: MW-5S (+3.54 ft), MW-5D (+1.33 ft), MW-8 (-0.28 ft) and OP-2 (+1.51 ft).
5. A replacement well (point) for FPC-6A was installed in August 2003, due to insufficient water for sampling for extended periods of time. However, the reference point elevation was not updated at that time. Therefore, groundwater elevations presented in previous monitoring reports for FPC-6A since August 2003 were incorrect. Summit surveyed the FPC-6A reference point elevation in December 2013 relative to the FPC-6B reference point elevation and determined that the measure point elevation for FPC-6A is 79.20 feet (not 77.00 feet, as identifed in previous reports). Groundwater elevations at FPC-6A since August 2004 were corrected by +2.20 feet. In addition, the FPC-6A screened interval was updated based on well depth (9.97 feet), stickup (5.54 feet), and an assumed 1 foot screen interval.
6. FPC-11C: Well casing was modified during road box repairs at FPC-11A/B/C on 1/10/2014 (Summit Environmental Consultants). Top of PVC casing was resurveyed relative to FPC-11A/B measuring points on 2/27/2014. Original measuring point elevation was 118.04 feet. New measuring point elevation is 118.10.

TABLE 2

SUMMARY OF OU-1 AND OU-2 GROUNWATER ANALYTICAL RESULTS

TABLE 2

Summary of 2017 Groundwater Analytical Data

Coakley Landfill Superfund Site - North Hampton and Greenland, New Hampshire

OPERABLE UNIT 1 (OU-1)																												
Sampling Point ID			**MW-4**	**MW-4-DUP**	**MW-4**	**MW-4-DUP**	**MW-5D**	**MW-5D**	**MW-5S**	**MW-5S**	**MW-6**	**MW-6**	**MW-8**	**MW-8**	**MW-9**	**MW-9**	**MW-10**	**MW-10**	**MW-11**	**MW-11**	**OP-2**	**OP-2**	**OP-5**	**OP-5**	**BP-4**	**BP-4**	**# of Exceedances**	
Monitored Zone / Unit	**EPA**	**NHDES**	Till	Till	Till	Till	DBR	DBR	SBR	SBR	OBH-BR	OBH-BR	SBR	SBR	Outwash	Outwash	Outwash	Outwash	SBR	SBR	Outwash	Outwash	Outwash	Outwash	OBH-BR	OBH-BR	**EPA**	**NHDES**
Date of Sample Collection	**CL**	**AGQS**	5/1/17	5/1/17	9/18/17	9/18/17	4/27/17	9/18/17	4/27/17	9/15/17	4/27/17	9/15/17	4/25/17	9/12/17	4/25/17	9/19/17	4/28/17	9/18/17	5/1/17	9/19/17	5/1/17	9/12/17	4/27/17	9/13/17	4/26/17	9/13/17	**CL**	**AGQS**
VOLATILE ORGANIC COMPOUNDS BY 8260B - (ug/L)																												
1,2,4-Trimethylbenzene	---	330	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	N/A	N/A	N/A	N/A	1 U	1 U	N/A	N/A	N/A	N/A	N/A	N/A	---	0
1,2-Dichloropropane	5	5	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	2 U	1U	2 U	1U	N/A	N/A	N/A	N/A	2 U	1U	N/A	N/A	N/A	N/A	N/A	N/A	0	0
1,4-Dichlorobenzene	---	75	N/A	N/A	N/A	N/A	1 U	1	1	1	1 U	1 U	1 U	1	N/A	N/A	N/A	N/A	1 U	1 U	N/A	N/A	N/A	N/A	N/A	N/A	---	0
2-Butanone(MEK)	200	4000	N/A	N/A	N/A	N/A	10 U	10U	10 U	10 U	10 U	10 U	10 U	10 U	N/A	N/A	N/A	N/A	10 U	10 U	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Benzene	5	5	N/A	N/A	N/A	N/A	2	2	2	2	1 U	1 U	2	3	N/A	N/A	N/A	N/A	2	2	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Chlorobenzene	100	100	N/A	N/A	N/A	N/A	2	2	1	1	2 U	1U	3	4	N/A	N/A	N/A	N/A	1	1U	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Chloroethane	---	---	N/A	N/A	N/A	N/A	40	42	5 U	5 U	5 U	5 U	14 J+	15	N/A	N/A	N/A	N/A	14	10	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Diethyl Ether	---	1400	N/A	N/A	N/A	N/A	110	120	24	24	5 U	5 U	65	73J-	N/A	N/A	N/A	N/A	15	13	N/A	N/A	N/A	N/A	N/A	N/A	---	0
IsoPropylbenzene	---	800	N/A	N/A	N/A	N/A	1 U	1 U	1	1U	1 U	1 U	1 U	1 U	N/A	N/A	N/A	N/A	1 U	1 U	N/A	N/A	N/A	N/A	N/A	N/A	---	0
Methyl-t-butyl ether(MTBE)	---	13	N/A	N/A	N/A	N/A	5 U	1U	5 U	1U	5 U	1U	5 U	1U	N/A	N/A	N/A	N/A	5 U	1U	N/A	N/A	N/A	N/A	N/A	N/A	---	0
m&p-Xylene	---	10000^	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	N/A	N/A	N/A	N/A	2	1	N/A	N/A	N/A	N/A	N/A	N/A	---	0
o-Xylene	---	10000^	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	N/A	N/A	N/A	N/A	1 U	1 U	N/A	N/A	N/A	N/A	N/A	N/A	---	0
tert-Butyl Alcohol (TBA)	---	40	N/A	N/A	N/A	N/A	40	50	30 U	30 U	30 U	30 U	50	40	N/A	N/A	N/A	N/A	30 UJ	30U	N/A	N/A	N/A	N/A	N/A	N/A	---	2
Tetrachloroethene	3.5	5	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	2 U	1U	2U	1U	N/A	N/A	N/A	N/A	2 U	1U	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Tetrahydrofuran(THF)	154	600	N/A	N/A	N/A	N/A	80	80	10	20	10 U	10 U	110	120	N/A	N/A	N/A	N/A	10	10	N/A	N/A	N/A	N/A	N/A	N/A	0	0
trans-1,2-Dichloroethene	100	100	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	2 U	1U	2 U	1U	N/A	N/A	N/A	N/A	2 U	1U	N/A	N/A	N/A	N/A	N/A	N/A	0	0
1,4-DIOXANE BY 8260B SIM - (ug/L)																												
1,4-Dioxane	3	3	**4.6**	**4.6**	**7.2J**	2.4J	**110**	**140**	**30**	**37**	0.25U	0.25U	**150**	**150J+**	0.25U	**5.8**	0.25U	**3.8**	**27**	**33**	0.66	0.69	0.25U	0.25U	**7.5**	**7.9**	11	11
DISSOLVED METALS BY 200.8 - (mg/L)																												
Dissolved Antimony	0.006	0.006	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	0	0
Dissolved Arsenic	0.01	0.01	**0.046**	**0.042**	**0.051**	**0.049**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.001U	**0.067**	0.001U	**0.044**	N/A	N/A	**0.15**	**0.26**	**0.023**	**0.022**	N/A	N/A	8	8
Dissolved Barium	---	2	0.076	0.067	0.059J+	0.061J+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.012	0.068J+	0.011J	0.053J+	N/A	N/A	0.01J	0.016J+	0.016	0.013J+	N/A	N/A	---	0
Dissolved Beryllium	0.004	0.004	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	0	0
Dissolved Calcium	---	---	68	60	65	68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18	73	12	58	N/A	N/A	35	35	12	9.2	N/A	N/A	---	---
Dissolved Chromium	0.05	0.1	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.001U	0.001U	0.001 U	0.001U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	0	0
Dissolved Iron	---	---	26	23	25	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.05U	34	0.4	39	N/A	N/A	51	48	11	7.6	N/A	N/A	---	---
Dissolved Lead	0.015	0.015	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	0	0
Dissolved Magnesium	---	---	22	19	20	21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	18	2.5	14	N/A	N/A	7.2	8	3.1	2.5	N/A	N/A	---	---
Dissolved Manganese	0.3	0.84	**1.2**	**1.1**	**1.2**	**1.3**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.083	**2.4**	0.14	**4.2**	N/A	N/A	**2**	**1.5**	**2.6**	**2.1**	N/A	N/A	8	8
Dissolved Nickel	0.1	0.1	0.009	0.008	0.008	0.008	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.003	0.011	0.002	0.013	N/A	N/A	0.008	0.01	0.034	0.029	N/A	N/A	0	0
Dissolved Potassium	---	---	35	32	28	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.6	7.5	3.1	7	N/A	N/A	9.7	12	2.6	2	N/A	N/A	---	---
Dissolved Sodium	---	---	37	34	28	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7	35	20	36	N/A	N/A	14	14	9	7	N/A	N/A	---	---
Dissolved Vanadium	0.26	---	0.005 U	0.005 U	0.005 U	0.005 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.005 U	0.005 U	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	0.005 U	0.005 U	N/A	N/A	0	---
TOTAL METALS BY 200.8																												
Total Antimony	0.006	0.006	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0	0
Total Arsenic	0.01	0.01	N/A	N/A	N/A	N/A	0.009	**0.011**	**0.02**	**0.021**	0.001 U	0.001 U	0.007	0.008	N/A	N/A	N/A	N/A	**0.013**	**0.013**	N/A	N/A	N/A	N/A	**0.039**	**0.041**	7	7
Total Barium	---	2	N/A	N/A	N/A	N/A	0.097	0.1J+	0.13	0.12J+	0.002	0.004J+	0.17	0.17J+	N/A	N/A	N/A	N/A	0.067	0.061J+	N/A	N/A	N/A	N/A	0.042	0.042J+	---	0
Total Beryllium	0.004	0.004	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0	0
Total Calcium	---	---	N/A	N/A	N/A	N/A	34	37	33	35	21	25	30	30	N/A	N/A	N/A	N/A	19	19	N/A	N/A	N/A	N/A	48	49	---	---
Total Chromium	0.05	0.1	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002	0.001U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0	0
Total Iron	---	---	N/A	N/A	N/A	N/A	15	16	13	14	0.75	1.4	3.3	2.3	N/A	N/A	N/A	N/A	12	13	N/A	N/A	N/A	N/A	16	17	---	---
Total Lead	0.015	0.015	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	0	0
Total Magnesium	---	---	N/A	N/A	N/A	N/A	30	33	17	17	8.2	9.6	34	36	N/A	N/A	N/A	N/A	14	14	N/A	N/A	N/A	N/A	19	20	---	---
Total Manganese	0.3	0.84	N/A	N/A	N/A	N/A	**0.8**	**0.92**	**2.9**	**3.1**	**0.84**	**2.0**	**1.3**	**1.3**	N/A	N/A	N/A	N/A	**0.49**	**0.51**	N/A	N/A	N/A	N/A	**1.2**	**1.4**	12	8
Total Nickel	0.1	0.1	N/A	N/A	N/A	N/A	0.013	0.008	0.008	0.008	0.002	0.004	0.021	0.022	N/A	N/A	N/A	N/A	0.008	0.006	N/A	N/A	N/A	N/A	0.008	0.008	0	0
Total Potassium	---	---	N/A	N/A	N/A	N/A	22	20	19	17	2.4	2.3	12	11	N/A	N/A	N/A	N/A	10	8.7	N/A	N/A	N/A	N/A	16	16	---	---
Total Sodium	---	---	N/A	N/A	N/A	N/A	130	130	72	71	19	23	170	180	N/A	N/A	N/A	N/A	70	66	N/A	N/A	N/A	N/A	51	55	---	---
Total Vanadium	0.26	---	N/A	N/A	N/A	N/A	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	N/A	N/A	N/A	N/A	0.005 U	0.005 U	N/A	N/A	N/A	N/A	0.005 U	0.005 U	0	---
Hexavalent Chromium by 7196A																												
Hexavalent Chromium	---	---	0.1U	0.1U	0.01U	0.1U	0.1U	0.01U	0.1U	0.01UJ	0.1U	0.01UJ	0.1U	0.01U	0.1U	0.01U	0.1U	0.01U	0.1U	0.1U	0.1U	0.01U	0.1U	0.1U	0.1U	0.01U	0	---
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																												
Perfluorobutanesulfonic acid (PFBS)	---	---	8.41J	7.82J	11.3J+	8.05J+	29.2	31.9	9.6J	9.14J	2.10U	2.38J	29.6	25.8	2.06U	9.3J	2.22U	5.16J+	10.7J	9.76J	2.16U	2.28U	2.21U	2.28U	2.34J	2.28U	---	---
Perfluoroheptanoic acid (PFHpA)	---	---	707	709	431	427	47.8	49.6	448	430	4.95J	3.25J	194	171J	135	435	54.6	342	401	401	41.1	24.6	2.61U	2.69U	27.4	22.8	---	---
Perfluorohexanesulfonic acid (PFHxS)	---	---	35.7	31.3	34.1	40.5	49	42.9	71.1	62.3	1.12U	1.44J	120	87.3J	12.0J	39	7.09J	20.2J	68.8	58.2	6.01J	4.5J	1.18U	1.22U	10.3J	8.5J	---	---
Perfluorooctanoic acid (PFOA)	70	70	**1240D**	**1050D**	**758**	**887**	**119**	**84.1**	**849D**	**689**	11.4J	5.7J	**435**	**326J+**	**386**	**744**	**186**	**775**	**799D**	**809**	**87.1**	39.5	1.86J	2.77J	62.3	48.6	12	12
Perfluorononanoic acid (PFNA)	---	---	59.8	54.5	28.1	25.5	2.03U	6.66J	50.9	63.8	2.00U	2.23U	5.85J	5.89J	128	165	44.6	235	73.4	86.7	6.34J	7.64J	2.11U	2.17U	2.03U	2.17U	---	---
Perfluorooctanesulfonic (PFOS)	70	70	55.8	60.6	27	25.5	23.9	25.2	**89.5**	**70.3**	3.79J	6.89J	**224J+**	**237**	**429**	**444**	**105**	**426**	**318**	**273**	12.7J	7.96J	1.05U	1.09U	7.97J	5.73J	9	9
Combination of PFOA and PFOS	70	70	**1295.8**	**1110.6**	**785**	**912.5**	**142.9**	**109.3**	**938.5**	**759.3**	15.19J	12.59J	**659J+**	**563J+**	**815**	**1188**	**291**	**1201**	**1117**	**1082**	**99.8J**	47.46J	1.86J	2.77J	**70.27J**	54.33J	12	12
FIELD PARAMETERS																												
Dissolved Oxygen (mg/l)	---	---	N/A	N/A	N/A	N/A	0.9	2.4	0.9	2.4	0.8	2.2	0.6	1.1	1.2	2.2	3.0	1.5	0.6	2.0	0.5	1.6	0.8	1.8	0.6	1.4	---	---
Oxidation Reduction Potential (mV)	---	---	N/A	N/A	N/A	N/A	-143	-134	-129	-113	156	105	-94	-144	170	-36	45	-61	-122	-123	-76	-56	26	38	-104	-101	---	---
pH (standard units)	---	---	N/A	N/A	N/A	N/A	7.2	7.1	7.0	7.0	5.9	5.9	7.5	7.6	6.2	6.4	6.5	6.4	7.1	7.0	6.4	6.3	5.8	6.0	6.8	6.8	---	---
Specific Conductance (us/cm)	---	---	N/A	N/A	N/A	N/A	1383	1238	834	847	304	362	1264	1155	149	717	193	673	611	537	572	558	195	141	863	774	---	---
Temperature (degrees Celcius)	---	---	N/A	N/A	N/A	N/A	9	14	10	17	10	13	8	16	6	15	10	15	8	14	7	17	8	14	10	13	---	---
Turbidity (NTU)	---	---	N/A	N/A	N/A	N/A	<5	<5	<5	<5	11	27	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	---	---

TABLE 2

Summary of 2017 Groundwater Analytical Data

Coakley Landfill Superfund Site - North Hampton and Greenland, New Hampshire

			OPERABLE UNIT 2 (OU-2)																											
Sampling Point ID			AE-1A	AE-1A	AE-1B	AE-1B	AE-2A	AE-2A	AE-2B	AE-2B	AE-3A	AE-3A-DUP	AE-3A	AE-3A-DUP	AE-3B	AE-3B	AE-4A	AE-4A	AE-4B	AE-4B	FPC-3A	FPC-3A	FPC-3B	FPC-3B	FPC-3C	FPC-3C	FPC-4B	FPC-4B	# of Exceedances	
Monitored Unit	EPA	NHDES	Till	Till	SBR	SBR	Till	Till	SBR	SBR	Till	Till	Till	Till	SBR	SBR	Till	Till	SBR	SBR	Till	Till	SBR	SBR	Outwash	Outwash	SBR	SBR	EPA	NHDES
Date of Sample Collection	CL	AGQS	5/1/17	9/18/17	5/1/17	9/18/17	4/27/17	9/19/17	4/26/17	9/19/17	4/25/17	4/25/17	9/14/17	9/14/17	4/26/17	9/12/17	5/1/17	9/14/17	4/26/17	9/14/17	5/1/17	9/20/17	5/1/17	9/20/17	5/1/17	9/20/17	5/1/17	9/14/17	CL	AGQS
VOLATILE ORGANIC COMPOUNDS BY 8260B - (ug/L)																														
1,2,4-Trimethylbenzene	---	330	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0
1,2-Dichloropropane	5	5	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	2 U	2 U	1U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	0	0
1,4-Dichlorobenzene	---	75	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0
2-Butanone(MEK)	200	4000	N/A	N/A	N/A	N/A	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0	0
Benzene	5	5	N/A	N/A	N/A	N/A	1 U	1 U	1U	1U	1	1	1	1	1	1	1U	1U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0	0
Chlorobenzene	100	100	N/A	N/A	N/A	N/A	2U	1U	2 U	1U	5	5	6	6	5	5	2U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	0	0
Chloroethane	---	---	N/A	N/A	N/A	N/A	5 U	5 U	5U	5U	6 J+	6	7	7	6	6	5U	5U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	---	---
Diethyl Ether	---	1400	N/A	N/A	N/A	N/A	5U	5U	14	18	11	11	13	12	11	12	5U	5U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	---	0
IsoPropylbenzene	---	800	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0
Methyl-t-butyl ether(MTBE)	---	13	N/A	N/A	N/A	N/A	5 U	1U	5 U	1U	5 U	5 U	1U	1U	5 U	1U	5 U	1U	5 U	1U	5 U	1U	5 U	1U	5 U	1U	5 U	1U	---	0
m&p-Xylene	---	10000^	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0
o-Xylene	---	10000^	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	---	0
tert-Butyl Alcohol (TBA)	---	40	N/A	N/A	N/A	N/A	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 UJ	30U	30 U	30U	30 UJ	30U	30 UJ	30U	30 UJ	30U	30 UJ	30U	---	0
Tetrachloroethene	3.5	5	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	2 U	2 U	1U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	0	0
Tetrahydrofuran(THF)	154	600	N/A	N/A	N/A	N/A	10 U	10 U	20	20	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0	0
trans-1,2-Dichloroethene	100	100	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	2 U	2 U	1U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	2 U	1U	0	0
1,4-DIOXANE BY 8260B SIM - (ug/L)																														
1,4-Dioxane	3	3	0.88	0.97	0.97	1.1	**5.9**	2.2	**58**	**67**	**14**	**16**	**18**	**19**	**15**	**16**	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.48	0.52	0.25U	0.25U	9	9
DISSOLVED METALS BY 200.8 - (mg/L)																														
Dissolved Antimony	0.006	0.006	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Arsenic	0.01	0.01	**0.017**	**0.016**	N/A	N/A	**0.13**	**0.17**	N/A	N/A	**0.093**	**0.09**	**0.11**	**0.11**	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7	7
Dissolved Barium	---	2	0.017	0.016J+	N/A	N/A	0.027	0.02J+	N/A	N/A	0.06	0.059	0.065J+	0.063J+	N/A	N/A	0.005	0.006J+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	0
Dissolved Beryllium	0.004	0.004	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001U	0.001 U	0.001U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Calcium	---	---	33	32	N/A	N/A	30	22	N/A	N/A	40	40	43	42	N/A	N/A	6.7	6.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Chromium	0.05	0.1	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001U	0.001 U	0.001U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Iron	---	---	0.38	0.38	N/A	N/A	23	14	N/A	N/A	22	22	23	23	N/A	N/A	0.05U	0.05U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Lead	0.015	0.015	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Magnesium	---	---	12	12	N/A	N/A	9	7.3	N/A	N/A	17	18	19	19	N/A	N/A	5.8	5.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Manganese	0.3	0.84	**0.48**	**0.48**	N/A	N/A	**1.1**	**0.72**	N/A	N/A	**1.2**	**1.2**	**1.3**	**1.3**	N/A	N/A	0.035	0.044	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7	5
Dissolved Nickel	0.1	0.1	0.001 U	0.001 U	N/A	N/A	0.008	0.007	N/A	N/A	0.006	0.006	0.007	0.007	N/A	N/A	0.001U	0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Potassium	---	---	3.9	3.6	N/A	N/A	15	13	N/A	N/A	16	16	17	17	N/A	N/A	2.4	2.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Sodium	---	---	21	21	N/A	N/A	33	30	N/A	N/A	58	59	62	61	N/A	N/A	7	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Vanadium	0.26	---	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	---
TOTAL METALS BY 200.8																														
Total Antimony	0.006	0.006	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001 U	0.001 U	0	0
Total Arsenic	0.01	0.01	N/A	N/A	0.008	0.007	N/A	N/A	0.004	**0.011**	N/A	N/A	N/A	N/A	**0.076**	**0.095**	N/A	N/A	0.001 U	0.001 U	0.008	0.007	0.003	0.002	**0.013**	**0.013**	0.001 U	0.001 U	5	5
Total Barium	---	2	N/A	N/A	0.039	0.035J+	N/A	N/A	0.08	0.098J+	N/A	N/A	N/A	N/A	0.15	0.16J+	N/A	N/A	0.009	0.016J+	0.004	0.004J+	0.004	0.007J+	0.006	0.007J+	0.003	0.005J+	---	0
Total Beryllium	0.004	0.004	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001 U	0.001 U	0	0
Total Calcium	---	---	N/A	N/A	31	31	N/A	N/A	40	40	N/A	N/A	N/A	N/A	41	46	N/A	N/A	9	9.1	3.7	3.7	2.1	2.1	24	25	3.6	5.1	---	---
Total Chromium	0.05	0.1	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001 U	0.001 U	0	0
Total Iron	---	---	N/A	N/A	2.5	2.3	N/A	N/A	2	6.7	N/A	N/A	N/A	N/A	17	20	N/A	N/A	0.05 U	0.1U	0.29	0.3	0.05U	0.5	0.1	0.3	0.05 U	0.1U	---	---
Total Lead	0.015	0.015	N/A	N/A	0.001U	0.001U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001 U	0.001 U	0	0
Total Magnesium	---	---	N/A	N/A	14	15	N/A	N/A	27	29	N/A	N/A	N/A	N/A	18	21	N/A	N/A	7.1	7.2	0.73	0.7	0.83	1	6.7	7.1	2.4	3.1	---	---
Total Manganese	0.3	0.84	N/A	N/A	**0.57**	**0.55**	N/A	N/A	**1.1**	**1.1**	N/A	N/A	N/A	N/A	**1.8**	**2**	N/A	N/A	0.005 U	**0.33**	0.01	0.009	0.013	0.019	0.13	0.13	0.005 U	0.005 U	7	4
Total Nickel	0.1	0.1	N/A	N/A	0.001U	0.001U	N/A	N/A	0.008	0.007	N/A	N/A	N/A	N/A	0.006	0.008	N/A	N/A	0.003	0.004	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001 U	0.001 U	0	0
Total Potassium	---	---	N/A	N/A	5.8	5.3	N/A	N/A	11	11	N/A	N/A	N/A	N/A	17	18	N/A	N/A	4.2	3.9	4	4	2.1	2.3	2.8	2.7	1.5	1.9	---	---
Total Sodium	---	---	N/A	N/A	25	26	N/A	N/A	150	160	N/A	N/A	N/A	N/A	64	69	N/A	N/A	18	18	63	65	65	70	12	13	5	7	---	---
Total Vanadium	0.26	---	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	N/A	N/A	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005 U	0.005 U	0	---
Hexavalent Chromium by 7196A																														
Hexavalent Chromium	---	---	0.1U	0.01U	0.1U	0.01U	0.1U	0.01U	0.1U	0.01U	0.1UJ	0.1UJ	0.01R	0.01R	0.1U	0.01U	0.1U	0.01UJ	0.1U	0.01UJ	0.1U	0.01U	0.1U	0.01U	0.1U	0.01U	0.1U	0.01UJ	---	---
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																														
Perfluorobutanesulfonic acid (PFBS)	---	---	2.03U	2.25U	2.18U	2.41U	5.29J	2.94J+	16.2J	14.7J+	4.17J	4.44J	4.63J	5.04J	5.18J	6.17J	2.13U	2.24U	2.05U	2.25U	2.01U	2.27U	2.01U	2.24U	2.07U	2.26U	2.08U	2.27U	---	---
Perfluoroheptanoic acid (PFHpA)	---	---	2.39U	2.65U	2.57U	2.84U	363	199	387	350	122	121	98.3	85	142	100	2.52U	2.64U	2.42U	2.66U	2.37U	2.68U	2.37U	2.64U	2.44U	2.67U	2.45U	2.68U	---	---
Perfluorohexanesulfonic acid (PFHxS)	---	---	2.02J	3.31J	2.05J	2.3J	31.2	17.3J	103	86.2	16.8J	17.9J	17.8J	18.4	19.6J	15.0J	1.14U	1.20U	1.09U	1.20U	1.07U	1.21U	1.07U	1.19U	1.10U	1.47J	1.11U	1.21U	---	---
Perfluorooctanoic acid (PFOA)	70	70	5.48J	4.2J	7.38J	4.37J	**827**	**499**	**902**	**709**	**387**	**339**	**224J**	**247**	**384**	**274**	1.12U	1.17U	1.07U	1.18U	1.05U	1.19U	1.05U	1.17U	1.08U	1.18U	1.09U	1.19U	9	9
Perfluorononanoic acid (PFNA)	---	---	1.93U	2.14U	2.07U	2.29U	93.5	126	73.2	101	54.1	45.1	47.3J	44.2	50.9	34.7	2.03U	2.14U	1.95U	2.15U	1.92U	2.17U	1.92U	2.14U	1.97U	2.16U	1.98U	2.17U	---	---
Perfluorooctanesulfonic (PFOS)	70	70	1.78J	2.5J	3.01J	2.05J	**297**	**300**	**456**	**415**	**91.9**	**87.6**	**76.8j**	**76.3**	**90.9**	64	1.02U	1.07U	0.98U	1.07U	0.96U	1.08U	0.96U	1.07U	0.99U	1.08U	0.99U	1.08U	8	8
Combination of PFOA and PFOS	70	70	7.26J	6.7J	10.39J	6.42J	**1124**	**799**	**1358**	**1124**	**478.9**	**426.6**	**300.8J**	**323.3**	**474.9**	**338**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	9
FIELD PARAMETERS																														
Dissolved Oxygen (mg/l)	---	---	N/A	N/A	N/A	N/A	1.1	2.0	2.0	2.2	0.7	N/A	1.3	N/A	0.7	2.2	2.0	2.1	5.6	1.9	0.8	1.6	1.4	1.7	0.6	0.8	10.0	1.8	---	---
Oxidation Reduction Potential (mV)	---	---	N/A	N/A	N/A	N/A	-83	-89	-77	-131	-84	N/A	-93	N/A	-92	-116	148	126	134	121	-158	-127	-111	-23	-177	-155	139	136	---	---
pH (standard units)	---	---	N/A	N/A	N/A	N/A	6.7	6.8	7.3	7.2	6.8	N/A	6.7	N/A	6.8	6.9	6.6	6.7	7.0	6.9	9.4	9.3	8.9	8.7	8.3	7.9	6.6	6.5	---	---
Specific Conductance (us/cm)	---	---	N/A	N/A	N/A	N/A	476	406	970	1090	870	N/A	943	N/A	881	885	125	135	175	211	294	276	296	288	239	220	71	90	---	---
Temperature (degrees Celcius)	---	---	N/A	N/A	N/A	N/A	9	14	9	14	7	N/A	14	N/A	8	16	7	15	9	14	8	15	8	14	8	13	8	13	---	---
Turbidity (NTU)	---	---	N/A	N/A	N/A	N/A	<5	<5	<5	<5	<5	N/A	12	N/A	<5	7	<5	<5	<5	<5	<5	8	<5	<5	<5	<5	<5	<5	---	---
Notes on Last Page of Table																														

TABLE 2

Summary of 2017 Groundwater Analytical Data

Coakley Landfill Superfund Site - North Hampton and Greenland, New Hampshire

OPERABLE UNIT 2 (OU-2)																														
Sampling Point ID			**FPC-5B**	**FPC-5B**	**FPC-6A**	**FPC-6A**	**FPC-6B**	**FPC-6B**	**FPC-7A**	**FPC-7A**	**FPC-7B**	**FPC-7B**	**FPC-8A**	**FPC-8A**	**FPC-8B**	**FPC-8B**	**FPC-9A**	**FPC-9A**	**FPC-9B**	**FPC-11A**	**FPC-11A**	**FPC-11B**	**FPC-11B**	**GZ-105**	**GZ-105-DUP**	**GZ-105**	**GZ-105-DUP**	**GZ-109**	**GZ-117**	**# of Exceedances**	
Monitored Unit	**EPA**	**NHDES**	SBR	SBR	Till	Till	SBR	SBR	Till	Till	SBR	SBR	Till	Till	SBR	SBR	Till	Till		Till	Till	Till	Till	SBR	SBR	SBR	SBR			**EPA**	**NHDES**
Date of Sample Collection	**CL**	**AGQS**	4/28/17	9/12/17	4/26/17	9/13/17	4/26/17	9/132	4/26/17	9/13/17	4/26/17	9/13/17	4/27/17	9/14/17	4/27/17	9/15/17	5/1/17	9/19/17	9/19/17	4/28/17	9/20/17	4/28/17	9/20/17	5/1/17	5/1/17	9/20/17	9/20/17	9/19/17	9/19/17	**CL**	**AGQS**
VOLATILE ORGANIC COMPOUNDS BY 8260B - (ug/L)																															
1,2,4-Trimethylbenzene	---	330	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	1 U	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	---	0
1,2-Dichloropropane	5	5	N/A	N/A	2 U	1U	2 U	1U	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	N/A	N/A	1U	N/A	N/A	N/A	N/A	2 U	2 U	1U	1U	1U	1U	0	0
1,4-Dichlorobenzene	---	75	N/A	N/A	1U	1U	1 U	1 U	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	1 U	N/A	N/A	N/A	N/A	3	2	2	2	1 U	1 U	---	0
2-Butanone(MEK)	200	4000	N/A	N/A	10 U	10 U	10 U	10 U	N/A	N/A	N/A	N/A	10 U	10 U	10 U	10 U	N/A	N/A	10 U	N/A	N/A	N/A	N/A	10 U	10 U	10 U	10 U	10 U	10 U	0	0
Benzene	5	5	N/A	N/A	1U	1U	1 U	1 U	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	1 U	N/A	N/A	N/A	N/A	4	4	3	3	1 U	1 U	0	0
Chlorobenzene	100	100	N/A	N/A	2	3	1	3	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	N/A	N/A	1U	N/A	N/A	N/A	N/A	6	6	5	5	1U	1U	0	0
Chloroethane	---	---	N/A	N/A	5 U	5 U	5 U	5 U	N/A	N/A	N/A	N/A	5 U	5 U	5 U	5 U	N/A	N/A	5 U	N/A	N/A	N/A	N/A	7	7	5U	5U	5 U	5 U	---	---
Diethyl Ether	---	1400	N/A	N/A	6	12	7	11	N/A	N/A	N/A	N/A	5 U	5 U	5 U	5 U	N/A	N/A	5 U	N/A	N/A	N/A	N/A	42	42	28	28	5 U	5 U	---	0
IsoPropylbenzene	---	800	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	1 U	N/A	N/A	N/A	N/A	1	1	1U	1U	1 U	1 U	---	0
Methyl-t-butyl ether(MTBE)	---	13	N/A	N/A	5 U	1U	5 U	1U	N/A	N/A	N/A	N/A	5 U	1U	5 U	1U	N/A	N/A	1U	N/A	N/A	N/A	N/A	5 U	5 U	1U	1U	1U	1U	---	0
m&p-Xylene	---	10000^	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	1 U	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	---	0
o-Xylene	---	10000^	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	N/A	N/A	1 U	N/A	N/A	N/A	N/A	1 U	1 U	1 U	1 U	1 U	1 U	---	0
tert-Butyl Alcohol (TBA)	---	40	N/A	N/A	30 U	30 U	30 U	30 U	N/A	N/A	N/A	N/A	30 U	30 U	30 U	30 U	N/A	N/A	30 U	N/A	N/A	N/A	N/A	30 U	30 U	30 U	30 U	30 U	30 U	---	0
Tetrachloroethene	3.5	5	N/A	N/A	2 U	1U	2 U	1U	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	N/A	N/A	1U	N/A	N/A	N/A	N/A	2 U	2 U	1U	1U	1U	1U	0	0
Tetrahydrofuran(THF)	154	600	N/A	N/A	10 U	10 U	10 U	10 U	N/A	N/A	N/A	N/A	10 U	10 U	10 U	10 U	N/A	N/A	10 U	N/A	N/A	N/A	N/A	30 J	30 J	20	20	10 U	10 U	0	0
trans-1,2-Dichloroethene	100	100	N/A	N/A	2 U	1U	2 U	1U	N/A	N/A	N/A	N/A	2 U	1U	2 U	1U	N/A	N/A	1U	N/A	N/A	N/A	N/A	2 U	2 U	1U	1U	1U	1U	0	0
1,4-DIOXANE BY 8260B SIM - (ug/L)																															
1,4-Dioxane	3	3	**40**	**59**	**8**	**22**	**7.1**	**19**	0.25U	0.25U	0.25U	0.25U	0.48	0.85	0.49	0.71	**14**	**17**	2.5	0.93	1.2	0.55	0.91	**65**	**67**	**54**	**51**	0.25U	0.25U	12	12
DISSOLVED METALS BY 200.8 - (mg/L)																															
Dissolved Antimony	0.006	0.006	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Arsenic	0.01	0.01	N/A	N/A	0.005	0.004	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001U	0.001U	N/A	N/A	**0.047**	**0.048**	N/A	**0.019**	0.007	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	3
Dissolved Barium	---	2	N/A	N/A	0.022	0.044J+	N/A	N/A	0.004	0.004J+	N/A	N/A	0.006	0.007J+	N/A	N/A	0.1	0.094J+	N/A	0.038	0.034J+	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	0
Dissolved Beryllium	0.004	0.004	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Calcium	---	---	N/A	N/A	21	33	N/A	N/A	13	15	N/A	N/A	22	36	N/A	N/A	54	53	N/A	55	57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Chromium	0.05	0.1	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Iron	---	---	N/A	N/A	0.41	0.19	N/A	N/A	0.05 U	0.05 U	N/A	N/A	0.05U	0.1	N/A	N/A	7.7	7.7	N/A	0.77	0.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Lead	0.015	0.015	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	0.001 U	0.001 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Magnesium	---	---	N/A	N/A	8.8	14	N/A	N/A	4	4.5	N/A	N/A	4.5	5.5	N/A	N/A	29	29	N/A	18	19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Manganese	0.3	0.84	N/A	N/A	**1.1**	**2.2**	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005U	0.21	N/A	N/A	0.21	0.2	N/A	**0.37**	**0.43**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	2
Dissolved Nickel	0.1	0.1	N/A	N/A	0.005	0.006	N/A	N/A	0.004	0.005	N/A	N/A	0.001U	0.001	N/A	N/A	0.004	0.004	N/A	0.001U	0.001U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Dissolved Potassium	---	---	N/A	N/A	5.9	8	N/A	N/A	2.1	2.1	N/A	N/A	2.7	2.5	N/A	N/A	11	9.7	N/A	6.3	5.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Sodium	---	---	N/A	N/A	49	93	N/A	N/A	9	10	N/A	N/A	17	18	N/A	N/A	89	86	N/A	120	110	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---
Dissolved Vanadium	0.26	---	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	N/A	0.005 U	0.005 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	---
TOTAL METALS BY 200.8																															
Total Antimony	0.006	0.006	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001U	0.001U	0	0
Total Arsenic	0.01	0.01	0.003	0.003	N/A	N/A	0.001	0.002	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.007	0.007	N/A	N/A	0.001	N/A	N/A	0.002	0.002	**0.014**	**0.013**	**0.012**	**0.012**	0.001U	0.001U	4	4
Total Barium	---	2	0.038	0.034J+	N/A	N/A	0.043	0.073J+	N/A	N/A	0.003	0.003J+	N/A	N/A	0.007	0.007J+	N/A	N/A	0.058J+	N/A	N/A	0.03	0.049J+	0.044	0.042	0.039J+	0.04J+	0.003J+	0.042J+	---	0
Total Beryllium	0.004	0.004	0.001 U	0.001 U	N/A	N/A	0.001U	0.001U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001U	0.001U	0	0
Total Calcium	---	---	5.4	4.9	N/A	N/A	9.2	20	N/A	N/A	17	18	N/A	N/A	21	22	N/A	N/A	17	N/A	N/A	28	22	50	47	45	47	2.4	85	---	---
Total Chromium	0.05	0.1	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001U	0.001U	0	0
Total Iron	---	---	0.22	0.2	N/A	N/A	4.1	6.8	N/A	N/A	0.05 U	0.1U	N/A	N/A	0.07	0.2	N/A	N/A	0.1U	N/A	N/A	0.79	2.8	3.8	3.5	3.6	3.5	1	0.1U	---	---
Total Lead	0.015	0.015	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.004	0.001U	N/A	N/A	0.001U	N/A	N/A	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001U	0.001U	0	0
Total Magnesium	---	---	3.3	3	N/A	N/A	5.2	10	N/A	N/A	4.8	5.5	N/A	N/A	4.5	5	N/A	N/A	11	N/A	N/A	7.9	8.4	19	18	18	19	0.6	13	---	---
Total Manganese	0.3	0.84	0.059	0.053	N/A	N/A	**0.45**	**0.45**	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.016	0.029	N/A	N/A	0.091	N/A	N/A	0.27	**0.55**	**0.42**	**0.39**	**0.41**	**0.43**	0.022	0.005U	7	0
Total Nickel	0.1	0.1	0.007	0.006	N/A	N/A	0.004	0.004	N/A	N/A	0.01	0.002	N/A	N/A	0.001 U	0.001 U	N/A	N/A	0.001	N/A	N/A	0.002	0.002	0.007	0.007	0.007	0.007	0.001U	0.001U	0	0
Total Potassium	---	---	6.4	5.8	N/A	N/A	5.1	7.2	N/A	N/A	2.1	2.1	N/A	N/A	3.1	2.9	N/A	N/A	6.2	N/A	N/A	6.6	8.6	6.3	6.1	5.8	6	2.4	4.4	---	---
Total Sodium	---	---	220	250	N/A	N/A	58	79	N/A	N/A	10	10	N/A	N/A	18	18	N/A	N/A	39	N/A	N/A	260	300	130	130	130	130	43	270	---	---
Total Vanadium	0.26	---	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005 U	0.005 U	N/A	N/A	0.005U	N/A	N/A	0.005U	0.005U	0.005 U	0.005 U	0.005 U	0.005 U	0.005U	0.005U	0	---
Hexavalent Chromium by 7196A																															
Hexavalent Chromium	---	---	0.1U	0.01U	0.1U	0.01R	0.1U	0.01R	0.1U	0.01U	0.1U	0.01U	0.1U	0.01R	0.1U	0.01R	0.1U	0.01U	0.01U	0.1U	0.01U	0.1U	0.01U	0.1U	0.1U	0.01U	0.01U	0.01U	0.01U	---	---
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																															
Perfluorobutanesulfonic acid (PFBS)	---	---	13.2J	11.0J	3.33J	5.22J	2.40J	4.96J	4.06J	3.52J	3.31J	3.39J	2.10U	2.28U	2.15U	2.35U	5.78J	5.65J	2.37U	2.12U	2.47U	2.18U	2.38U	13.4J	14.9J	10.2J	9.88J	2.33U	2.37J	---	---
Perfluoroheptanoic acid (PFHpA)	---	---	27.9	31.8	27.6	54.9	21.9	40.8	2.49U	3.09J	2.42U	4.73J	4.67J	6.64J	2.54U	2.77U	29.5	25.3	4.38J	4.88J	5.03J	2.82J	4.14J	123	140	90.9	96.4	2.75U	2.73U	---	---
Perfluorohexanesulfonic acid (PFHxS)	---	---	41.4	36.6	11.0J	18.2J	8.49J	15.2J	1.13U	1.76J	1.09U	1.61J	2.54J	4.34J	1.76J	2.69J	18.0J	14.5J	5.15J	5.88J	4.73J	2.85J	4.34J	66.4	64.1	37	43.1	1.24U	1.24U	---	---
Perfluorooctanoic acid (PFOA)	70	70	**192**	**136**	**93.3**	**143**	**80.4**	**110**	5.64J	7.72J	5.56J	12.3J	10.3J	11.6J	3.96J	2.26J	**111**	**75.7**	21.5J	24.9	18.4J	14.0J	14.7J	**340**	**425**	**220**	**226**	1.74J	5.16J	12	12
Perfluorononanoic acid (PFNA)	---	---	2.12U	2.34U	4.05J	10.9J	2.93J	7.73J	2.01U	2.24U	1.95U	2.20U	2.00U	2.17U	2.05U	2.24U	2.18U	2.26U	2.26U	2.02U	2.36U	2.08U	2.27U	19.8	23.4	22.4	26.4	2.22U	2.21U	---	---
Perfluorooctanesulfonic (PFOS)	70	70	30.1	34.7	18.9J	19.4J	13.0J	20.3J	1.88J	2.26J	1.35J	2.58J	2.84J	3.66J	2.53J	1.12U	20.9J	21.8J	4.75J	1.60J	3.61J	3.77J	10.8J	**163**	**211**	**141**	**145**	1.11U	17.3J	4	4
Combination of PFOA and PFOS	70	70	**222.1**	**170.7**	**112.2J**	**162.4J**	**93.4J**	**130.3J**	7.52J	9.98J	6.91J	14.88J	13.14J	15.26J	6.49J	2.26J	**131.9**	**97.5**	26.25J	26.5J	22.01J	17.77J	25.5J	**503**	**636**	**361**	**371**	1.74J	22.46J	8	8
FIELD PARAMETERS																															
Dissolved Oxygen (mg/l)	---	---	0.7	1.1	0.7	1.4	1.6	1.7	5.3	4.9	3.8	4.1	1.9	2.1	0.7	1.6	0.5	1.4	1.8	0.8	2.0	1.0	1.6	2.5	N/A	1.5	N/A	1.4	6.0	---	---
Oxidation Reduction Potential (mV)	---	---	-164	-124	-32	25	-73	-87	142	169	161	156	132	115	-128	-139	-120	-125	-73	-98	-109	-173	-149	-136	N/A	-130	N/A	-41	72	---	---
pH (standard units)	---	---	8.0	7.9	7.0	6.8	6.9	6.9	6.4	6.4	6.5	6.5	6.5	6.7	8.0	8.0	7.2	7.2	7.7	7.4	7.4	8.0	7.5	7.4	N/A	7.4	N/A	8.9	6.8	---	---
Specific Conductance (us/cm)	---	---	1135	1086	444	683	325	439	160	166	191	192	215	317	200	239	998	980	366	1053	1169	1551	1899	885	N/A	847	N/A	203	1830	---	---
Temperature (degrees Celcius)	---	---	9	14	8	15	8	13	9	13	9	15	10	15	10	15	8	11	12	11	14	11	14	8	N/A	13	N/A	14	14	---	---
Turbidity (NTU)	---	---	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	8	<5	7	<5	<5	<5	<5	<5	<5	<5	<5	N/A	<5	N/A	9	<5	---	---
Notes on Last Page of Table																															

TABLE 2

Summary of 2016 Groundwater Analytical Data

Coakley Landfill Superfund Site - North Hampton and Greenland, New Hampshire

NOTES

1. Monitored Zone / Unit identifies the hydrogeological unit within the screened/open interval. The hydrogeology of the site is comprised of four principle geological units include including bedrock, glacial till, marine sediments consisting of predominately of silt and clay, and sandy outwash. Bedrock well screened intervals vary as follows: "OBH-BR" wells are standard 6-inch diameter wells with steel casing set in bedrock and open boreholes (typical water supply well construction). "SBR" indicates the screen interval is the upper most section of bedrock. "DBR" is used to differentiate a screened interval that is below the uppermost section of bedrock (i.e.; MW-5S versus MW-5D).
2. **Bolded values** denote concentration exceeding the EPA Cleanup Level (CL)
3. Shaded values denote concentration exceeding the NHDES Ambient Groundwater Quality Standard
4. The list of volatile organic compounds (VOCs) provided includes analytes detected in OU-1 or OU-2 since 2006, and all VOCs that have ICLs. ICLs were established for 1,2-dichloropropane and tetrachloroethylene (PCE), however, no detections have been reported at groundwater sampling points included in the long-term monitoring events since 1998. An ICL was established for trans-1,2-dichloroethene however no detections have been reported at groundwater sampling points included in the long-term monitoring events since 1999.
5. An ICL was established for the semi-volatile organic compounds (SVOCs) diethyl phthalate and phenol. However, in May 1998 and April 1999, groundwater samples were submitted for analysis of SVOCs and no exceedances were reported; therefore, SVOCs were removed from the long-term monitoring plan.
6. Result for groundwater primary/duplicate samples are provided in this table: MW-4/MW-4-DUP, AE-3A/AE-3A-DUP, and GZ-105/GZ-105-DUP.

ABBREVIATIONS

N/A	Sample was not analyzed/measured for indicated parameter
R	Sample rejected based on data vadation
J	Estimated concentration
J+	Estimated high
J-	Estimated low
#.## U	Not Detected at the reporting detection limit indicated
UJ	Undetected estimated
NHDES AGQS	NH Department of Environmental Services Ambient Groundwater Quality Standard (Env-Or-600, Table 600-1)
EPA CL	US Environmental Protection Agency Cleanup Level established in 2015 Fifth Explanation of Significant Difference. Cleanup Levels were historically called Interium Cleanup Levels.
uS/cm	microsiemens per centimeter
ug/L	micrograms per liter, parts per billion
mg/L	milligram per liter, parts per million
ng/L	nanograms per liter, parts per
NTU	nephelometric turbidity unit
mV	millivolt
*	Field parameter result qualified due to failed QA/QC or suspected issues with measurements, as noted on field forms and
^	The AGQS for xylenes is for total xylene or the sum of all isomers, including: m&p-Xylene and o-Xylene.

CES INC

TABLE 3

SUMMARY OF OFF-SITE WATER SUPPLY WELL MONITORING RESULTS

TABLE 3

Summary of Analytical Results for Off-Site Water Supply Wells

Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	**EPA**	**NHDES**	**EPA**	**339 BHR**	**339 BHR**	**339 BHR**	**346 BHR**	**346 BHR**	**346 BHR**	**415 BHR**	**415 BHR**	**415 BHR**	**R-3**	**R-3 Dup**	**R-3**	**R-3 Dup**	**R-3**	**R-3 DUP**	**67 RCD**	**67 RCD**	**67 RCD**
DATE SAMPLED	**CL**	**AGQS**	**MCL**	26-May-16	27-Jan-17	21-Sep-17	26-May-16	27-Jan-17	21-Sep-17	25-May-16	27-Jan-17	12-Sep-17	1-Jun-16	1-Jun-16	24-Jan-17	24-Jan-17	14-Sep-17	14-Sep-17	26-May-16	26-Jan-17	12-Sep-17
VOLATILE ORGANIC COMPOUNDS																					
Methyl tert-butyl ether (ug/L)	-	13	-	<0.05	<0.5	<0.5	<0.05	<0.005	<0.5	<0.05	<0.005	<0.5	<0.05	<0.05	<0.005	<0.005	<0.5	<0.5	NA	NA	NA
Toluene (ug/L)	-	1000	1000	<0.05	<0.05	<0.5	<0.05	<0.005	<0.5	<0.05	<0.005	<0.5	<0.05	<0.05	<0.005	<0.005	<0.5	<0.5	NA	NA	NA
1,4-dioxane (ug/L)	3	3	-	0.51	0.35	0.54	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	0.3	0.34	0.33	0.34	0.28	0.32	<0.25	<0.25	<0.25
METALS																					
Arsenic, total (mg/L)	0.01	0.01	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, total (mg/L)	0.3	0.84	-	**0.31J**	**0.42**	**0.34**	0.28J	0.29	**0.45**	0.046J	0.055	0.056	0.19J	0.19J	0.19	0.19	0.15	0.14	0.17J	0.21	0.23
FIELD PARAMETERS																					
Temperature (degrees Celcius)	-	-	-	12	11	13	11	11	11	11	10	12	11	NA	10	NA	11	NA	11	8	12
pH (standard units)	-	-	-	7.2	7.1	7.0	6.9	6.8	6.7	8.6	8.4	8.1	7.9	NA	7.9	NA	7.7	NA	7.7	7.5	7.2
Conductivity (uS/cm)	-	-	-	424	368	375	893	791	646	401	395	434	402	NA	348	NA	406	NA	286	256	310
Dissolved Oxygen (mg/L)	-	-	-	2.2	0.8	0.6	1.4	1.1	<0.5	0.6	<0.5	0.6	< 0.5	NA	<0.5	NA	<0.5	NA	< 0.5	<0.5	<0.5
Turbidity (NTU)	-	-	-	7	23	18	8	14	7	< 5	<5	<5	< 5	NA	<5	NA	<5	NA	< 5	<5	8
Oxidation/Reduction Potential (mV)	-	-	-	-94	-78	-37	-2	3	10	-237	-252	-224	-180	NA	-173	NA	-144	NA	-140	-136	-92
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																					
Date Sampled	**EPA**	**NHDES**		**339 BHR**	**339 BHR**	**339 BHR**	**346 BHR**	**346 BHR**	**346 BHR**	**415 BHR**	**415 BHR**	**415 BHR**	**R-3**	**R-3 Dup**	**R-3**	**R-3 Dup**	**R-3**	**R-3 DUP**	**67 RCD**	**67 RCD**	**67 RCD**
	HA	**AGQS**		11-Jul-16	27-Jan-17	21-Sep-17	11-Jul-16	27-Jan-17	12-Sep-17	11-Jul-16	27-Jan-17	12-Sep-17	11-Jul-16	NA	24-Jan-17	24-Jan-17	14-Sep-17	14-Sep-17	NA	26-Jan-17	12-Sep-17
Perfluorobutanesulfonic acid (PFBS)	---	---		<16	<8	<2.41	<16	<8	<2.21	<16	<8	<2.30	<16	NA	<8	<8	<2.30	<2.32	NA	<8	<2.30
Perfluoroheptanoic acid (PFHpA)	---	---		<16	8.06	6.61J	<16	<8	<2.61	<16	<8	<2.71	<16	NA	<8	<8	<2.72	<2.74	NA	<8	<2.72
Perfluorohexanesulfonic acid (PFHxS)	---	---		<8	<8	<1.28	<8	<8	<1.18	<8	<8	1.66J	<8	NA	<8	<8	<1.23	<1.24	NA	<8	<1.23
Perfluorooctanoic acid (PFOA)	70	70		25	17.8	13.5J	<8	<8	<1.16	<8	<8	<1.20	<8	NA	<8	<8	2.03J	<1.22	NA	<8	2.03J
Perfluorononanoic acid (PFNA)	---	---		<16	<8	<2.30	<8	<8	<2.11	<8	<8	<2.19	<8	NA	<8	<8	<2.20	<2.21	NA	<8	<2.19
Perfluorooctanesulfonic (PFOS)	70	70		<8	<8	<1.15	<16	<8	1.05J	<16	<8	<1.09	<16	NA	<8	<8	<1.10	<1.11	NA	<8	<1.10
Combination of PFOA and PFOS	---	70		25	17.8	13.5J	ND	ND	1.05J	ND	ND	ND	ND	NA	ND	ND	2.03J	ND	NA	ND	2.03J

TABLE NOTES:

TABLE ABBREVIATIONS:

NA = Not Analyzed
NM = Not Measured
NR = Not Recorded - field parameter measurement did not meet QA/QC criteria and were rejected
uS/cm = microsiemens per centimeter
ug/L = micrograms per liter (parts per billion)
mg/L = milligrams per liter (parts per million)
NTU - Nephelometric Turbidity Units
mV = millivolts
< = parameter concentration below detection limit indicated
R-3-DUP = duplicate sample collected at R-3

NHDES AGQS = NHDES Ambient Groundwater Quality Standard
EPA MCL = EPA Primary Drinking Water Standard
EPA CL = EPA Groundwater Quality Standard
BHR = Breakfast Hill Road
RCD = Ridgecreast Drive
SMW = Stone Meadow Way
Bold values denote concentration exceeding the EPA Cleanup Level (CL).
Shaded values denote concentration exceeding the NHDES Ambient Groundwater Quality Standard
Post = Post treatment sample collected for arsenic and manganese.
J = The reported analyte is an estimated concentration

BFL = Berry Farm Lane
ROD = Red Oak Drive
FW = Falls Way
WKD = Woodknoll Drive
BR = Birch Road
LR = Lafayette Road

TABLE 3
Summary of Analytical Results for Off-Site Water Supply Wells
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	**EPA**	**NHDES**	**EPA**	**4 SMW**	**4 SMW Post**	**4 SMW**	**4 SMW**	**9 SMW**	**9 SMW Post**	**9 SMW**	**9 SMW**	**10 SMW**	**10 SMW Post**	**10 SMW**	**10 SMW**	**16 SMW**	**16 SMW Post**	**16 SMW**	**16 SMW**
DATE SAMPLED	**CL**	**AGQS**	**MCL**	26-May-16	26-May-16	25-Jan-17	13-Sep-17	26-May-16	26-May-16	25-Jan-17	19-Sep-17	25-May-16	25-May-16	24-Jan-17	12-Sep-17	27-May-16	27-May-16	26-Jan-17	18-Sep-17
VOLATILE ORGANIC COMPOUNDS																			
Methyl tert-butyl ether (ug/L)	-	13	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene (ug/L)	-	1000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-dioxane (ug/L)	3	3	-	<0.25	NA	<0.25	<0.25	<0.25	NA	<0.25	<0.25	<0.25	NA	<0.25	<0.25	<0.25	NA	<0.25	<0.25
METALS																			
Arsenic, total (mg/L)	0.01	0.01	0.01	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.011**	<0.001	<0.001	<0.001
Manganese, total (mg/L)	0.3	0.84	-	0.14J	<0.005J	0.034	0.12	0.14J	<0.005J	0.14	0.12	0.14J	<0.005J	0.088	0.240	**2.1J**	0.016J	0.028	0.017
FIELD PARAMETERS																			
Temperature (degrees Celcius)	-	-	-	12	NA	12	13	11	NA	9	11	11	NA	11	11	10	NA	10	13
pH (standard units)	-	-	-	6.8	NA	6.6	6.9	7.9	NA	8.2	7.4	6.8	NA	6.8	6.7	7.5	NA	7.3	7.1
Conductivity (uS/cm)	-	-	-	663	NA	522	683	435	NA	346	434	411	NA	323	577	549	NA	428	586
Dissolved Oxygen (mg/L)	-	-	-	1.0	NA	0.9	0.9	4.5	NA	<0.5	<0.5	3.3	NA	3.6	1.2	1	NA	0.8	0.9
Turbidity (NTU)	-	-	-	< 5	NA	<5	<5	5	NA	<5	<5	< 5	NA	<5	7	< 5	NA	9	<5
Oxidation/Reduction Potential (mV)	-	-	-	93	NA	153	50	-194	NA	-205	171	53	NA	74	60	75	NA	159	52
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																			
Date Sampled	**EPA**	**NHDES**		**4 SMW**	**4 SMW Post**	**4 SMW**	**4 SMW**	**9 SMW**	**9 SMW Post**	**9 SMW**	**9 SMW**	**10 SMW**	**10 SMW Post**	**10 SMW**	**10 SMW**	**16 SMW**	**16 SMW Post**	**16 SMW**	**16 SMW**
	HA	**AGQS**		11-Jul-16	NA	25-Jan-17	13-Sep-17	11-Jul-16	NA	25-Jan-17	19-Sep-17	11-Jul-16	NA	24-Jan-17	12-Sep-17	NA	NA	26-Jan-17	18-Sep-17
Perfluorobutanesulfonic acid (PFBS)	---	---		<16	NA	<8	<2.33	<16	NA	<8	<2.46	<16	NA	<8	<2.27	NA	NA	<8	<2.23
Perfluoroheptanoic acid (PFHpA)	---	---		22B	NA	<8	<2.75	<16	NA	<8	<2.90	77B	NA	<8	<2.68	NA	NA	<8	<2.63
Perfluorohexanesulfonic acid (PFHxS)	---	---		<8	NA	<8	2.52J	<8	NA	<8	<1.31	<8	NA	<8	1.99J	NA	NA	<8	<1.19
Perfluorooctanoic acid (PFOA)	70	70		<8	NA	<8	4.57J	<8	NA	<8	<1.29	<8	NA	<8	2.81J	NA	NA	<8	<1.17
Perfluorononanoic acid (PFNA)	---	---		<8	NA	<8	<2.22	<8	NA	<8	<2.35	<8	NA	<8	<2.16	NA	NA	<8	<2.13
Perfluorooctanesulfonic (PFOS)	70	70		<16	NA	<8	1.87J	<16	NA	<8	<1.17	<16	NA	<8	<1.08	NA	NA	<8	<1.06
Combination of PFOA and PFOS	---	70		ND	NA	ND	6.44J	ND	NA	ND	ND	ND	NA	ND	2.81J	NA	NA	ND	ND

TABLE 3

Summary of Analytical Results for Off-Site Water Supply Wells

Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	EPA	NHDES	EPA	19 SMW	19 SMW Post	19 SMW	19 SMW	21 SMW	21 SMW Post	21 SMW	21 SMW	21 SMW Dup	4 ROD	4 ROD Post	4 ROD	4 ROD	10 ROD	10 ROD Post	10 ROD	10 ROD
DATE SAMPLED	**CL**	**AGQS**	**MCL**	27-May-16	27-May-16	23-Jan-17	13-Sep-17	25-May-16	25-May-16	23-Jan-17	12-Sep-17	12-Sep-17	26-May-16	26-May-16	23-Jan-17	18-Sep-17	25-May-16	25-May-16	26-Jan-17	13-Sep-17
VOLATILE ORGANIC COMPOUNDS																				
Methyl tert-butyl ether (ug/L)	-	13	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene (ug/L)	-	1000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-dioxane (ug/L)	3	3	-	<0.25	NA	<0.25	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	NA	<0.25	<0.25	<0.25	NA	<0.25	<0.25
METALS																				
Arsenic, total (mg/L)	0.01	0.01	0.01	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, total (mg/L)	0.3	0.84	-	0.15J	0.009J	0.063	0.075	0.06J	<0.005J	0.064	0.070	0.070	**0.34J**	<0.005J	**0.38**	**0.42**	**0.31J**	<0.005J	0.008	0.028
FIELD PARAMETERS																				
Temperature (degrees Celcius)	-	-	-	10	NA	10	11	11	NA	11	11	NA	11	NA	10	12	10	NA	9	11
pH (standard units)	-	-	-	8.0	NA	8.3	8.0	8.5	NA	8.4	8.0	NA	7.0	NA	7.1	6.6	7.7	NA	7.5	7.7
Conductivity (uS/cm)	-	-	-	852	NA	705	750	681	NA	671	707	NA	609	NA	589	626	494	NA	464	565
Dissolved Oxygen (mg/L)	-	-	-	0.5	NA	<0.5	0.6	0.6	NA	0.6	<0.5	NA	1.1	NA	<0.5	<0.5	1.1	NA	0.6	1.2
Turbidity (NTU)	-	-	-	< 5	NA	<5	<5	< 5	NA	<5	6	NA	< 5	NA	<5	<5	< 5	NA	<5	<5
Oxidation/Reduction Potential (mV)	-	-	-	-167	NA	-188	-172	-188	NA	-167	-125	NA	-37	NA	-50	-13	8	NA	155	80
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																				
Date Sampled	**EPA**	**NHDES**		**19 SMW**	**19 SMW Post**	**19 SMW**	**19 SMW**	**21 SMW**	**21 SMW Post**	**21 SMW**	**21 SMW**	**21 SMW Dup**	**4 ROD**	**4 ROD Post**	**4 ROD**	**4 ROD**	**10 ROD**	**10 ROD Post**	**10 ROD**	**10 ROD**
	HA	**AGQS**		11-Jul-16	NA	23-Jan-17	13-Sep-17	13-Jul-16	NA	23-Jan-17	12-Sep-17	12-Sep-17	11-Jul-16	NA	23-Jan-17	18-Sep-17	11-Jul-16	NA	26-Jan-17	13-Sep-17
Perfluorobutanesulfonic acid (PFBS)	---	---		<16	NA	<8	<2.21	<16	NA	<8	<2.24	<2.27	<16	NA	<8	4.05J+	<16	NA	<8	2.45J
Perfluoroheptanoic acid (PFHpA)	---	---		91B	NA	<8	<2.60	<16	NA	<8	<2.64	<2.67	<16	NA	<8	<2.59	<16	NA	<8	<2.72
Perfluorohexanesulfonic acid (PFHxS)	---	---		<8	NA	<8	<1.18	<8	NA	<8	<1.20	<1.21	<8	NA	<8	1.68J	<8	NA	<8	2.59J
Perfluorooctanoic acid (PFOA)	70	70		<8	NA	<8	1.77J	<8	NA	<8	2.21J	<1.19	<8	NA	<8	<1.15	<8	NA	<8	2.34J
Perfluorononanoic acid (PFNA)	---	---		<8	NA	<8	<2.10	<8	NA	<8	<2.14	<2.16	<8	NA	<8	<2.09	<8	NA	<8	<2.20
Perfluorooctanesulfonic (PFOS)	70	70		<16	NA	<8	<1.05	<16	NA	<8	<1.07	<1.08	<16	NA	<8	<1.05	<16	NA	<8	2.50J
Combination of PFOA and PFOS	---	70		ND	NA	ND	1.77J	ND	NA	ND	2.21J	ND	ND	NA	ND	ND	ND	NA	ND	4.84J

TABLE 3

Summary of Analytical Results for Off-Site Water Supply Wells

Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	EPA	NHDES	EPA	25 FW	25 FW Post	25 FW	25 FW Dup	25 FW	5 BFL	5 BFL	5 BFL	9 BFL	9 BFL	15 BFL	15 BFL	15 BFL	340 BHR	340 BHR	340 BHR	463 BHR	463 BHR	463 BHR
DATE SAMPLED	**CL**	**AGQS**	**MCL**	27-May-16	27-May-16	24-Jan-17	24-Jan-17	20-Sep-17	NA	26-Jan-17	15-Sep-17	25-Jan-17	12-Sep-17	NA	25-Jan-17	19-Sep-17	11-Jul-16	27-Jan-17	21-Sep-17	NA	24-Jan-17	13-Sep-17
VOLATILE ORGANIC COMPOUNDS																						
Methyl tert-butyl ether (ug/L)	-	13	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene (ug/L)	-	1000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-dioxane (ug/L)	3	3	-	<0.25	NA	<0.25	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	NA	<0.25	<0.25	NA	<0.25	<0.25	NA	<0.25	<0.25
METALS																						
Arsenic, total (mg/L)	0.01	0.01	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.001	0.006	<0.001	<0.001	NA	<0.001	<0.001	NA	<0.001	<0.001	NA	0.006	0.010
Manganese, total (mg/L)	0.3	0.84	-	0.034J	0.029J	0.017	0.018	0.025	NA	**0.82**	**2.3**	0.007	0.089	NA	0.21	0.12	NA	0.011	0.013	NA	0.16	0.22
FIELD PARAMETERS																						
Temperature (degrees Celcius)	-	-	-	10	NA	9	NA	10	NA	9	14	10	12	NA	10	12	NA	11	14	NA	10	12
pH (standard units)	-	-	-	7.8	NA	8.1	NA	7.5	NA	7.0	6.7	6.3	6.4	NA	7.4	7.3	NA	6.6	6.4	NA	7.7	7.4
Conductivity (uS/cm)	-	-	-	363	NA	292	NA	352	NA	550	588	212	729	NA	418	640	NA	140	173	NA	646	735
Dissolved Oxygen (mg/L)	-	-	-	< 0.5	NA	<0.5	NA	<0.5	NA	<0.5	<0.5	4	1.8	NA	<0.5	<0.5	NA	1.2	4.8	NA	3	3.3
Turbidity (NTU)	-	-	-	< 5	NA	<5	NA	<5	NA	<5	205	<5	<5	NA	<5	<5	NA	<5	<5	NA	<5	<5
Oxidation/Reduction Potential (mV)	-	-	-	-146	NA	-115	NA	-119	NA	-4	35	189	208	NA	-1	-10	NA	151	158	NA	-70	-64
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																						
Date Sampled	**EPA**	**NHDES**		**25 FW**	**25 FW Post**	**25 FW**	**25 FW Dup**	**25 FW**	**5 BFL**	**5 BFL**	**5 BFL**	**9 BFL**	**9 BFL**	**15 BFL**	**15 BFL**	**15 BFL**	**340 BHR**	**340 BHR**	**340 BHR**	**463 BHR**	**463 BHR**	**463 BHR**
	HA	**AGQS**		11-Jul-16	NA	24-Jan-17	24-Jan-17	20-Sep-17	11-Jul-16	26-Jan-17	15-Sep-17	25-Jan-17	12-Sep-17	13-Jul-16	25-Jan-17	19-Sep-17	11-Jul-16	27-Jan-17	21-Sep-17	11-Jul-16	24-Jan-17	13-Sep-17
Perfluorobutanesulfonic acid (PFBS)	---	---		<16	NA	<8	<8	<2.36	<16	<8	<2.30	<8	<2.33	<16	<8	<2.25	<16	<8	<2.33	<16	<8	<2.26
Perfluoroheptanoic acid (PFHpA)	---	---		<16	NA	<8	<8	<2.78	<16	<8	<2.71	<8	<2.75	<16	<8	<2.65	<16	<8	<2.74	<16	<8	<2.66
Perfluorohexanesulfonic acid (PFHxS)	---	---		<8	NA	<8	<8	<1.26	<8	<8	<1.23	<8	1.40J	<8	<8	<1.20	<8	<8	<1.24	11	<8	7.17J
Perfluorooctanoic acid (PFOA)	70	70		<8	NA	<8	<8	3.06J	<8	<8	<1.20	<8	<1.22	<8	<8	<1.18	<8	<8	<1.22	<8	<8	<1.18
Perfluorononanoic acid (PFNA)	---	---		<8	NA	<8	<8	<2.25	<16	<8	<2.19	<8	<2.22	<16	<8	<2.14	<16	<8	<2.22	<16	<8	<2.15
Perfluorooctanesulfonic (PFOS)	70	70		<16	NA	<8J	<8J	<1.12	<8	<8	1.37J	<8	4.69J	<8	<8	<1.07	<8	<8	<1.11	8.1	<8	4.66J
Combination of PFOA and PFOS	---	70		ND	NA	ND	ND	3.06J	ND	ND	1.37J	ND	4.69J	ND	ND	ND	ND	ND	ND	8.1	ND	4.66J

It should be noted that 3 and 5 Berry Farm Lane share one well, 9 and 11 Berry Farm Lane share one well, and 15 and 17 Berry Fram Lane share one well.

SAMPLE IDENTIFICATION	EPA	NHDES	EPA	7 WKD	8 WKD	27 BR	178A LR
DATE SAMPLED	**CL**	**AGQS**	**MCL**	14-Sep-17	14-Sep-17	14-Sep-17	19-Sep-17
VOLATILE ORGANIC COMPOUNDS							
Methyl tert-butyl ether (ug/L)	-	13	-	NA	NA	NA	NA
Toluene (ug/L)	-	1000	1000	NA	NA	NA	NA
1,4-dioxane (ug/L)	3	3	-	<0.25	<0.25	<0.25	0.29
METALS							
Arsenic, total (mg/L)	0.01	0.01	0.01	<0.001	0.002	<0.001	0.001
Manganese, total (mg/L)	0.3	0.84	-	<0.005	0.053	<0.005	0.057
FIELD PARAMETERS							
Temperature (degrees Celcius)	-	-	-	14	12	16	14
pH (standard units)	-	-	-	6.9	7.7	6.3	7.3
Conductivity (uS/cm)	-	-	-	698	323	407	349
Dissolved Oxygen (mg/L)	-	-	-	2.8	<0.5	6.4	0.8
Turbidity (NTU)	-	-	-	<5	<5	<5	<5
Oxidation/Reduction Potential (mV)	-	-	-	110	-109	170	133
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)							
Date Sampled	**EPA**	**NHDES**		**7 WKD**	**8 WKD**	**27 BR**	**178 ALR**
	HA	**AGQS**		14-Sep-17	14-Sep-17	14-Sep-17	19-Sep-17
Perfluorobutanesulfonic acid (PFBS)	---	---		<2.28	<2.30	3.98J	<2.27
Perfluoroheptanoic acid (PFHpA)	---	---		<2.68	<2.72	<2.74	<2.68
Perfluorohexanesulfonic acid (PFHxS)	---	---		4.24J	2.50J	<1.24	<1.21
Perfluorooctanoic acid (PFOA)	70	70		6.06J	<1.21	2.75J	3.72J
Perfluorononanoic acid (PFNA)	---	---		<2.17	<2.19	<2.21	<2.16
Perfluorooctanesulfonic (PFOS)	70	70		3.62J	<1.10	6.11J	1.14J
Combination of PFOA and PFOS	---	70		9.68J	ND	8.86J	4.86J

TABLE 4

SUMMARY OF SURFACT WATER ANALYTICAL RESULTS

TABLE 4
Summary of Surface Water Analytical Data for 2017
Coakley Landfill Superfund Site - North Hampton Greenland, New Hampshire

SAMPLE IDENTIFICATION	NHDES Surface Water Standard		SW-4	SW-4	SW-5	SW-5Dup	SW-5	SW-5Dup	SW-103	SW-103	SW-110	SW-110	SW-111	SW-111	SW-LR	SW-LR	SW-BB1	SW-BB1	SW-BB2	SW-BB2	EPA Screening Levels		EPA Screening Levels	
DATE SAMPLED	Acute	Chronic	2-May-17	15-Sep-17	2-May-17	2-May-17	19-Sep-17	19-Sep-17	25-Apr-17	19-Sep-17	25-Apr-17	13-Sep-17	2-May-17	19-Sep-17	2-May-17	13-Sep-17	2-May-17	13-Sep-17	2-May-17	15-Sep-17				
VOLATILE ORGANIC COMPOUNDS BY 8260B (ug/L)																								
Volatile orgnaic compounds were not detected in any of the surface water samples collected during the April/May 2017 and September 2017 sampling events.																								
METALS BY 200.8 (mg/L)																								
TOTAL OR DISSOLVED (METALS ONLY)			Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved				
Aluminum	0.75	0.087	0.1	0.1	0.05U	0.05U	0.1U	0.1U	0.05U	0.1U	0.05U	0.1U	0.08	0.1U	0.33	0.2	0.05U	0.1U	0.05U	0.1U				
Antimony	9	1.6	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U				
Arsenic*	0.34	0.15	0.001	0.003	0.001	0.001	0.003	0.003	0.001U	0.003	0.001U	0.001	0.001U	0.003	0.001	0.002	0.001	0.008	0.001	0.002				
Barium	---	---	0.006	0.017	0.009	0.009	0.02	0.019	0.012	0.019	0.009	0.015	0.007	0.017	0.006	0.01	0.016	0.033	0.013	0.016				
Beryllium	0.13	0.0053	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U				
Cadmium*	0.00095	0.0008	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U				
Calcium	---	---	11	21	21	21	36	35	21	34	16	17	9.3	15	6.5	18.0	15	21	13	26				
Chromium (Cr+3 + Cr+6)*	0.183 (Cr+3) 0.016 (Cr+6)	0.024 (Cr+3) 0.011 (Cr+6)	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U				
Cobalt	---	---	0.001U	0.001U	0.001U	0.001U	0.001	0.001	0.001U	0.002	0.001U	0.002	0.001U	0.003	0.001U	0.001U	0.001U	0.007	0.001U	0.001				
Copper*	0.0036	0.0027	0.001	0.002	0.002	0.001	0.001U	0.001	0.003	0.001	0.002	0.001	0.001	0.002	0.002	0.001	0.002	0.001U	0.001	0.003				
Iron	---	1	0.26	0.63	0.92	0.93	0.78	0.70	0.11	0.88	0.12	0.65	0.34	2.4	0.35	0.54	0.36	13	0.42	0.63				
Lead*	0.014	0.00054	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U				
Magnesium	---	---	3.5	6.6	4.9	4.8	9.6	9.5	5.7	9.1	4.0	4.3	2.7	4.4	2.0	4.9	3.7	5.0	3.6	5.2				
Manganese	---	---	0.054	0.82	0.22	0.22	3.0	3.0	0.022	4.6	0.048	0.570	0.04	2.00	0.03	0.085	0.23	1.30	0.029	0.640				
Mercury*	0.0014	0.00077	0.0001U	0.0002U	0.0001U	0.0001U	0.0002U	0.0002U	0.0001U	0.0002U	0.0001U	0.0002U	0.0001U	0.0002U	0.0001U	0.0002U	0.0001U	0.0002U	0.001U	0.0002U				
Nickel*	0.1449	0.016	0.001	0.003	0.002	0.002	0.004	0.004	0.002	0.005	0.002	0.002	0.001	0.002	0.002	0.002	0.002	0.004	0.001U	0.003				
Potassium	---	---	2.1	2.3	5.5	5.5	12.0	12.0	6.4	9.1	2.6	1.9	1.6	2.1	1.0	2.0	2.8	2.3	3.6	3.9				
Selenium	---	0.0005	0.001U	0.001U	0.001U	0.001U		0.001	0.001U	0.001	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U				
Silver*	0.00032	---	0.001U	0.001U	0.001U	0.001U	0.001UJ	0.001UJ	0.001U	0.001UJ	0.001U	0.001U	0.001U	0.001UJ	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U				
Sodium	---	---	11	17	15	14	30	30	17	25	25	20	22	27	12	24	20	19	16	17				
Thallium	1.4	0.04	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U	0.001U				
Vanadium	---	---	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U				
Zinc*	0.0362	0.0365	0.01	0.024	0.007	0.006	0.005U	0.007	0.006	0.008	0.006	0.006	0.005U	0.01	0.006	0.01	0.005U	0.005U	0.008	0.039				
1,4-Dioxane by 8260B SIM ug/L																								
1,4-Dioxane	---	---	0.25U	0.25U	0.59	0.63	2	1.9	1.3	1.3	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U	0.25U				
GENERAL CHEMISTRY																								
Ammonia** (mg/L)	pH Dependent		0.05U	0.96	0.05U	0.05U	0.3	0.3	0.05	0.21	0.05U	0.06	0.05U	0.05U	0.05U	0.06	0.05U	0.09	0.05U	0.05U				
																					Adult Recreator	**Child Recreator**	**Adult Recreator**	**Child Recreator**
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng																					**EF = 45 Days**		**EF = 120 Days**	
Perfluorobutanesulfonic acid (PFBS)	---	---	3.73J	6.73J	2.30U	2.07U	6.26J+	5.26J+	2.2J	5.42J+	2.28U	2.35U	2.28U	2.39U	2.31U	2.29J	2.20U	2.25U	2.45U	2.59U	18,300,000	2,030,000	6,850,000	760,000
Perfluoroheptanoic acid (PFHpA)	---	---	58.4	74.3	222	218	336	334	233	336	68.3	42.7	19.7J	11.1J	3.58J	8.69J	55.5	51.3	104	88.2	---	---	---	---
Perfluorohexanesulfonic acid (PFHxS)	---	---	13.0J	19.6J	13.8J	13.3J	22.5J	17.9J	16.9J	18.7J	4.8J	4.66J	1.44J	1.27U	1.39J	3.28J	4.83J	4.49J	7.53J	8.78J	---	---	---	---
Perfluorooctanoic acid (PFOA)	---	---	129	145	794J	742J	648	683	763J-	675	198J-	88.6	57	26.6	11.4J	18.1J	178	108	293	213	18,300	2,030	6,850	760
Perfluorononanoic acid (PFNA)	---	---	17.9J	34.9	296	308	249J	316	235	287	38	57.2	14.7J	11.1J	2.20U	2.15U	36.9	64.4	80.7	127	---	---	---	---
Perfluorooctanesulfonic (PFOS)	---	---	36.2	42.1	391DJ	770DJ	1120	1100	758	993	77.1	68.2	25.5	23.9	5.57J	9.79J	88.1	80.1	176	205	18,300	2,030	6,850	760
Combination of PFOA and PFOS	---	---	165.2	187.1	1185	1512	1768	1783	1521	1668	275.1	156.8	82.5	50.5	16.97	27.89	266.1	188.1	469	418	---	---	---	---
FIELD PARAMETERS																								
Temperature (degrees C)	---	---	10	19	9	NA	16	NA	6	16	12	15	11	19	10	19	11	16	10	18				
pH (Standard Units)	---	---	6.5	6.2	6.7	NA	7.0	NA	6.7	7.0	6.9	6.4	6.3	6.4	6.3	7.2	6.4	6.5	6.1	6.4				
Specific Conductance (us/cm)	---	---	135	245	246	NA	511	NA	251	431	262	232	190	323	115	267	225	236	170	257				
Dissolved Oxygen (mg/L)	---	---	5.9	1.0	1.8	NA	<0.5	NA	7.1	1.0	8.3	4.9	7.9	<0.5	9.7	7.0	7.8	0.6	3.0	<0.5				
Turbidity (NTU)	---	---	<5	72	8	NA	22	NA	<5	20	<5	8	<5	18	7	<5	<5	15	16	8				
Oxidation Reduction Potential (mV)	---	---	99	9	-44	NA	-111	NA	198	-71	99	35	127	-40	132	114	112	-36	47	-1				

NOTES:

1. VOCs list is limited to analytes detected in samples
2. --- no standard has been established for the indicated parameter.
3. NHDES Surface Water Standards are listed in Env Wq 1700, Table 1703.1
4. There are no ROD ICLs established for surface water.
5. Highlighting: Bold values denote NHDES Acute Surface Water Criteria Exceedances; Gray shaded values denote NHDES Chronic Criteria Exceedances. Blue shaded values denote EPA Screening Level Child Recreator Exceedances, EF = 120 days

6. The reporting detection limit (RDL) for zinc, silver and lead are consistent with RDLs specified in the SAP; however, they exceed the "default" (see footnote *) acute and/or chronic standards.

*	Acute and chronic standards based on "default" values listed in Env Wq 1700, Table 1703.1. Actual standards may vary based on
**	The freshwater and saltwater aquatic life criteria for ammonia are pH dependent. Refer to Env-Wq 1703.25 through Env-Wq 1703.31.
EF	Exposure frequency

CES INC

TABLE 5

SUMMARY OF SEDIMENT ANALYTICAL RESULTS

TABLE 5

Summary of Sediment Analytical Data for 2017

Coakley Landfill Superfund Site - North Hampton and Greenland, New Hampshire

Sampling Point ID	SQuiRT TEC	SED-4	SED-4	SED-5	SED-5-DUP	SED-5	SED-5-DUP	SED-110	SED-110	SED-111	SED-LR	SED-LR	SED-BB1	SED-BB2	SED-BB2				
Date of Sample Collection	(Dry Weight)	5/2/2017	9/15/2017	5/2/2017	5/2/2017	9/19/2017	9/19/2017	4/25/2017	9/13/2017	9/19/2017	5/2/2017	9/13/2017	9/13/2017	5/2/2017	9/15/2017				
TOTAL METALS BY 6020 - (mg/kg)																			
Total Aluminum	---	6600	4200	11000	12000	34000	33000	14000	11000	13000	16000	15000	10000	4200	8000				
Total Antimony	---	0.7	1.1	1.9	2	0.5U	0.5U	0.5U	0.5	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U				
Total Arsenic	9.79	4.1	4.8	12	13	11	13	7.5	9.1	4.5	4.9	14	7	8.5	11				
Total Barium	---	67	73	110	120	210	220	90	63	74	110	70	31	27	46				
Total Beryllium	---	0.5U	0.5U	0.7	0.7	2	2	0.6	0.6	0.5	0.7	0.6	0.5U	0.5U	1.5				
Total Cadmium	0.99	0.7	1.2	0.6	0.6	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U				
Total Calcium	---	12000	16000	7000	7700	3200	3300	2200	1900	2200	3600	2200	2300	1200	1200				
Total Chromium	43.4	8.1	5.5	23	23	63	61	32	28	24	26	41	36	8.1	15				
Total Cobalt	---	1.3	2.9	6.9	7.7	11	11	3.9	5.3	4.4	6	8.9	5.9	2.3	3.8				
Total Copper	31.6	12	20	36	37	33	35	18	17	8.4	10	16	14	6.7	11				
Total Iron	---	2200	5400	15000	16000	29000	29000	9400	12000	8900	11000	18000	17000	13000	13000				
Total Lead	35.8	56	100	68	65	22	25	49	48	23	25	25	7.8	12	13				
Total Magnesium	---	1600	2000	3000	3100	9000	8900	3600	3200	3000	2800	6300	5400	1200	2200				
Total Manganese	---	360	1100	290	310	420	420	140	360	200	380	360	200	110	200				
Total Mercury	0.18	0.4	0.5	0.5J	1J	0.1U	0.1U	0.3	0.1	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U				
Total Nickel	22.7	6.2	7.8	20	21	41	41	18	16	13	14	29	23	6.8	11				
Total Potassium	---	1300	600	2900	2900	9300	8700	2500	2000	2300	3700	2900	1500	800	1700				
Total Selenium	---	2.3	2.1	1.5	1.5	0.5U	0.5	0.6	0.5	0.6	0.6	0.5U	0.5U	0.5U	0.5U				
Total Silver	---	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U				
Total Sodium	---	200	300	300	300	600	500	200	100	700	400	300	100U	100U	100				
Total Thallium	---	0.5U	0.5U	0.5U	0.5U	0.5	0.6	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U				
Total Vanadium	---	20	29	37	37	47	48	28	23	22	29	31	27	10	18				
Total Zinc	121	62	140	80	82	110	110	78	62	41	45	58	38	15	32				
1,4-Dioxane by 8260B SIM mg/kg																			
1,4-Dioxane	---	0.6U	1UJ	0.4U	0.5U	0.2U	0.1U	0.2U	0.2U	0.1U	0.2U	0.1U	0.1U	0.1U	0.1U				
																Adult Recreator	Child Recreator	Adult Recreator	Child Recreator
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (mg/kg)																EF = 45 days		EF = 120 days	
Perfluorobutanesulfonic acid (PFBS)	---	0.00123UJ	0.00121UJ	0.00122UJ	0.00123UJ	0.00186U	0.00217U	0.00122U	0.00122U	0.00188U	0.00121U	0.00125U	0.00120U	0.00123U	0.00119U	9,120	983	3,420	369
Perfluoroheptanoic acid (PFHpA)	---	0.00255J-	0.00268J	0.00337J-	0.00350J-	0.00166U	0.00194U	0.00109UJ	0.00109U	0.00168U	0.00108U	0.00112U	0.00107U	0.00110U	0.00106U	---	---	---	---
Perfluorohexanesulfonic acid (PFHxS)	---	0.00190J-	0.00275J	0.00129UJ	0.00130UJ	0.00197U	0.00230U	0.00129U	0.00129U	0.00199U	0.00128U	0.00133U	0.00127U	0.00130U	0.00126U	---	---	---	---
Perfluorooctanoic acid (PFOA)	---	0.00863J-	0.00843J	0.0169J	0.0171J-	0.00209J	0.00208J	0.00112UJ	0.00112U	0.00173U	0.00111U	0.00115U	0.00110U	0.00113U	0.0012	9.12	0.98	3.42	0.369
Perfluorononanoic acid (PFNA)	---	0.00526J	0.00636J	0.0209J	0.0225J	0.00258J	0.00326J	0.00135U	0.00135U	0.00209U	0.00134U	0.00139U	0.00133U	0.00136U	0.00155	---	---	---	---
Perfluorooctanesulfonic (PFOS)	---	0.0168J-	0.021J	0.152DJ-	0.164DJ-	0.022	0.0327	0.00167J	0.00642	0.00204U	0.00131U	0.00136U	0.00130U	0.00333J	0.0106	9.12	0.98	3.42	0.369
Combination of PFOA and PFOS	---	0.02543	0.02943	0.1689	0.1811	0.02409	0.03478	0.00167	0.00642	ND	ND	ND	ND	0.00333	0.0118	---	---	---	---
TOTAL SOLIDS BY 2540G-91 - (Percent - %)																			
Solids Total	---	19.8	11.4	23.6	22.7	56.4	56.1	52.1	51.1	56.8	31.5	68.4	82.2	70.1	59.5				

NOTES:

mg/kg = milligram per kilogram, parts per million

--- = no standard has been established for the indicated parameter.

< = concentration is below reporting detection limit indicated

J, UJ = data qualifiers applied based on EPA's Tier I Plus data validation guidelines. J = estimated, UJ = estimated detection limit

1. Beginning in 2014, sediment data was qualified in accordance with EPA's Tier I Plus data validation guidelines.
2. The EPA has not established a cleanup standard for sediment.
3. April 2005, that includes the "National Oceanic and Atmospheric Administration Screening Quick Reference Tables (NOAA SQuiRT Tables for Inorganics in Sediment - Freshwater). Current SQuiRT Tables are located on the NOAA website: http://archive.orr.noaa.gov/book_shelf/122_NEW-SQuiRTs.pdf . TEC is Threshold Effect Concentration, which is consensus-based and incorporates the Ontario Ministry of the Environment lowest-observed effect levels (LELs).
4. Gray shaded values denote concentrations exceeding the NOAA SQuiRT TEC standard.
   Blue shaded values denote concentrations exceedingthe EPA Screening Levels.

TABLE 6

SUMMARY OF L-1 SEEP ANALYTICAL RESULTS

TABLE 6

Summary of L-1 Seep Analytical Results 2001 - 2017

Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	NHDES SURFACE		L-1	L-1	L-1	L-1	L-1		L-1	L-1	L-1	L-1	L-1	L-1	L-1-DUP	L-1	L-1-DUP	L-1	L-1-DUP	L-1	L-1-DUP	L-1	L-1-DUP
DATE SAMPLED	WATER STANDARDS		27-Aug-03	25-Aug-04	25-Aug-05	30-Nov-06	13-Nov-07		12-Aug-08	19-Aug-09	17-Aug-10	19-Aug-11	30-Aug-12	14-Aug-13	14-Aug-13	17-Sep-15	17-Sep-15	1-Jun-16	1-Jun-16	28-Apr-17	28-Apr-17	21-Sep-17	21-Sep-17
COMMENTS	ACUTE	CHRONIC				ID 104240																	
PARAMETER ANALYZED																							
VOLATILE ORGANIC COMPOUNDS (ug/L)																							
Benzene	5300	NSE	2	<2	2	2	3		<1	1.9	2	2.0	2	2	2	2	2	1	1	<1	<1	1	1
Chlorobenzene	250	50	18	12	20	18	22		<2	20	24	18	15	13	14	16	14	11	12	<1	<1	12	12
Chloroethane	NSE	NSE	6	3	6	<2	6		<5	4.4	<5	4.1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,4 Dichlorobenzene (See Note 4)	1120	763	2	<2	3	2	3		<1	2.5	3	2.3	2	2	2	2	2	2J	2J	<1	<1	2	2
1,3-Dichlorobenzene (See Note 4)			<2	<2	<2	<2	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	2J	<1J	<1	<1	<1	<1
1,2 Dichlorobenzene (See Note 4)			<2	<2	<2	<2	1		<1	1.1	2	1.2	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Isopropylbenzene	NSE	NSE	<2	<2	<2	2	2		<1	1.5	2	1.6	1	1	1	1	BDL	<1	<1	<1	<1	<1	<1
Diethyl Ether	NSE	NSE	<10	<10	<10	<10	23		<5	13	15	12	10	10	10	11	10	7	7	<5	<5	7	7
Naphthalene	2300	620	<10	<10	<10	<10	<5		<5	0.6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrahydrofuran	NSE	NSE	<30	<30	<30	<30	20		<10	12	10	<10	<10	<10	<10	10	10	<10	<10	<10	<10	<10	<10
Toluene	NSE	NSE	<2	<2	<2	<2	<1		<1	<1	1	<1	<1	<1	<1	<1	2J	<1	<1	<1	<1	<1	<1
LOW LEVEL 1,4-DIOXANE (ug/L)																							
1,4-Dioxane	NSE	NSE	NA	NA	NA	NA	NA		NA	26	20	25	28	22	24	NA	NA	NA	NA	1.5	1.3	17	18
METALS (ug/L)			Total	Total	Total		Total	Dissolved	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
Aluminum	750	87	**9,500**	**29,000**	**18,000**	NA	<50	<50	170	<50	<50	<50	<50	<50	80	<50	<50	<50	<50	80	70	<100	<100
Antimony	9,000	1,600	<2	<4	<6	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Arsenic	340	150	67	150	300	NA	7	6	4	4	7	6	4	5	7	6	6	3	3	2	2	5	5
Barium	NSE	NSE	610	2200	4600	NA	97	99	11	100	100	97	87	92	110	100	96	74	73	11	10	75	78
Beryllium	130	5.3	<4	3	<2	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium	0.95	0.80	<2	<4	<6	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Calcium	NSE	NSE	100,000	140,000	150,000	NA	50,000	62,000	20,000	64,000	71,000	63,000	79,000	56,000	57,000	67,000	67,000	52,000	52,000	17,000	16,000	57,000	57,000
Chromium	183	24	27	55	70	NA	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
Cobalt	NSE	NSE	6	11	10	NA	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Copper	3.6	2.7	**13**	**36**	**40**	NA	<1	1	**8**	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	9	8	<1	<1
Iron	NSE	1,000	330,000	1,000,000	1,100,000	NA	30,000	27,000	1,200	35,000	34,000	31,000	31,000	35,000	45,000	35,000	33,000	36,000	35,000	2,800	2,500	32,000	33,000
Lead	14	0.54	8	**34**	<6	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Magnesium	NSE	NSE	36,000	34,000	43,000	NA	20,000	25,000	2,500	25,000	21,000	21,000	20,000	16,000	16,000	17,000	17,000	18,000	18,000	3,400	3,100	18,000	19,000
Manganese	NSE	NSE	5,900	10,000	9,800	NA	2,700	3,200	98	3,200	2,900	2,700	3,300	2,500	2,500	2400 J+	2,200 J+	2,700	2,700	400	370	2,800	2,900
Mercury	1.4	0.77	<0.2	<0.2	<0.2	NA	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2
Nickel	144.9	16.1	28	32	40	NA	7	8	3	7	6	4	6	5	5	5	5	5J	5J	4	3	5	5
Potassium	NSE	NSE	46,000	38,000	50,000	NA	34,000	40	7,800	37,000	33,000	30,000	31,000	25,000	27,000	26,000	27,000	25,000	25,000	5,200	5,300	25,000	26,000
Selenium	NSE	5	4	3	<2	NA	<1	<1	<1	<1	2	2	5	5	5	5	5	3	3	<1	<1	4	4
Silver	0.32	NSE	**2**	<4	<6	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1J	<1J	<1	<1	<1J	<1J
Sodium	NSE	NSE	160,000	140,000	150,000	NA	130,000	150,000	<10	100,000	110,000	91,000	100,000	78,000	76,000	90,000	90,000	61,000	62,000	8,000	8,000	65,000	71,000
Thallium	1,400	40	<2	<4	<6	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium	NSE	NSE	36	89	220	NA	1	1	2	2	1	<1	<1	<1	<1	<1	<1	<5	<5	<5	<5	<5	<5
Zinc	36.2	36.5	**140**	**390**	**690**	NA	<5	**650**	**56**	12	6	<5	<5	<5	10	<5	<5	<5	<5	38	34	<5	<5
PER- & POLY-FLUORINATED ALKYL SUBSTANCES BY MODIFIED 537 - (ng/L)																							
Perfluorobutanesulfonic acid (PFBS)	NSE	NSE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.09U	2.13U	4.85J	5.50J
Perfluoroheptanoic acid (PFHpA)	NSE	NSE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	175	170	111	109
Perfluorohexanesulfonic acid (PFHxS)	NSE	NSE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.12J	9.39J	19.0J	19.4J
Perfluorooctanoic acid (PFOA)	NSE	NSE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	656	736	319	310
Perfluorononanoic acid (PFNA)	NSE	NSE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	308	310	70.3	75.6
Perfluorooctanesulfonic acid (PFOS)	NSE	NSE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1930D	1560J	164J	150
Combination of PFOA and PFOS	NSE	NSE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2586	2296	483	460
GENERAL CHEMISTRY																							
Chemical Oxygen Demand (mg/l)	NSE	NSE	560	282	377	NA	70		50	50	54	40	44	52	68	32	43	19	18	28	33	55	48
Ammonia-N (mg/l)	36.1	5.91	**44.8**	**56.8**	**79**	NA	33		0.62	21	22	25	24	21	19	23	23	**110**	**100**	1.5	1.3	19	19

	EPA Screening Levels EF = 45 Days		EPA Screening EF = 120 Days	
	Adult	Child	Adult	Child
Perfluorobutanesulfonic acid (PFBS)	18,300,000	2,030,000	6,850,000	760,000
Perfluoroheptanoic acid (PFHpA)	---	---	---	---
Perfluorohexanesulfonic acid (PFHxS)	---	---	---	---
Perfluorooctanoic acid (PFOA)	18,300	2,030	6,850	760
Perfluorononanoic acid (PFNA)	---	---	---	---
Perfluorooctanesulfonic acid (PFOS)	18,300	2,030	6,850	760
Combination of PFOA and PFOS	---	---	---	---

FIELD PARAMETERS	13-Nov-07	12-Aug-08	19-Aug-09	17-Aug-10	19-Aug-11	30-Aug-12	14-Aug-13	14-Aug-13 DUP	17-Sep-15	17-Sep-15 DUP	1-Jun-16	1-Jun-16 DUP	28-Apr-17	28-Apr-17 DUP	21-Sep-17	21-Sep-17 DUP
Temperature (degrees Celcius)	12	18	14	16	15	16	15	NA	15	NA	11	NA	11	NA	15	NA
pH (standard units)	6.2	6.6	6.4	6.6	5.1	6.6	6.3	NA	6.4	NA	6.6	NA	6.7	NA	6.3	NA
Conductivity (us/cm)	1,600	176	1,459	1,500	821	1,399	1,220	NA	1,283	NA	1,223	NA	189	NA	1,066	NA
Dissolved Oxygen (mg/l)	2.2	4.9	1.3	0.6	3.4	2.3	2.3	NA	2.6	NA	0.8	NA	5.1	NA	<0.5	NA
Turbidity (NTU)	18	90	10	9	2	17	144	NA	6	NA	10	NA	16	NA	18	NA
Oxidation/Reduction Potential (mV)	138	42	-38	-99	-73	-76	-102	NA	-111	NA	-60	NA	-25	NA	-36	NA

NOTES:
1. BDL = Below Detection Limit; NA = Not Analyzed
2. NSE indicates no standard has been established for the indicated parameter.
3. NHDES Surface Water Standard are listed in Env Wq 1700
4. Acute and chronic standards based on total dichlorobenzenes
5. Ammonia-N standard is based on pH of 7.0 at 14 C, salinoids not present.
6. A **bold** entry indicates the parameter exceeded the acute surface water standard.
7. Shaded values indicate the parameter exceeded the chronic surface water standard.
8. **Bold** and shaded values indicate exceedances of both NHDES acute and chronic criteria.
9. Shaded values denote EPA Screening Level Child Recreator Exceedances, EF = 120 days
10. Volatile organic compounds and metals results are in micrograms per liter (µg/l).
11. Only volatile organic compounds detected in one or more leachate sample during the period shown are listed.
12. Only volatile organic compounds detected in one or more leachate sample during the period shown are listed.
13. Refer to Table 2 and 3 for Field Parameter unit abbreviations
14. The laboratory detection limits (for 2013) were above the either the Acute or Chronic standard for the following

LABORATORY ANALYTICAL METHODS *(Not Confirmed for Analyses Performed Prior to 2010)*
1. Volatile Organic Compounds (VOC) analyzed by EPA Method 8260B.
2. 1,4-dioxane (low level) analyzed by EPA Method 8260B SIM
3. Metals analyzed by EPA Method 200.8
4. Chemical Oxygen Demand analyzed by 4500-NH3
5. Ammonia-N analyzed by H8000

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TABLE 7

DUPLICATE SAMPLE COMPARISONS

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

DUPLICATE COMPARISON TABLE NOTES

ABBREVIATIONS

U	Not Detected
UJ	Not Detected, detection limit estimated
J	Laboratory estimated value
J-	Laboratory estimated value, biased low
J+	Laboratory estimated value, biased high
EB	Parameter Detected in Equipment Blank

NOTES

1. Primary/Duplicate sample pairs were evaluated for reproducibility to assess whether the sampling methods provide reproducible data. The relative percent difference (RPD) acceptance criteria is described in the September 2017 Sampling and Analysis Plan Table 4-3 (Field Quality Control Requirements).
2. Acceptance criteria for duplicates are ± 30% for aqueous samples and ± 50% for solid samples.
3. Exceedances of the acceptance criteria are shaded.
4. A Tier I Plus data validation was completed on the data set and laboratory results were qualified in accordance with the September 2017 Sampling and Analysis Plan. The flags (Qualifiers) listed in the duplicate comparison tables are based on the results of the Tier 1 Plus data validation.

Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			GW-AE-3A			GW-AE-3A-DUP			
Sample Collection Date			4/25/2017			4/25/2017			
Laboratory Sample ID			167944.14			167944.15			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Dissolved Antimony	200.8-Dissolved	mg/L	0.001	U	0	0.001	U	0	0%
Dissolved Arsenic	200.8-Dissolved	mg/L	0.093			0.09			3%
Dissolved Barium	200.8-Dissolved	mg/L	0.06			0.059			2%
Dissolved Beryllium	200.8-Dissolved	mg/L	0.001	U	0	0.001	U	0	0%
Dissolved Calcium	200.8-Dissolved	mg/L	40			40			0%
Dissolved Chromium	200.8-Dissolved	mg/L	0.001	U	0	0.001	U	0	0%
Dissolved Iron	200.8-Dissolved	mg/L	22			22			0%
Dissolved Lead	200.8-Dissolved	mg/L	0.001	U	0	0.001	U	0	0%
Dissolved Magnesium	200.8-Dissolved	mg/L	17			18			6%
Dissolved Manganese	200.8-Dissolved	mg/L	1.2			1.2			0%
Dissolved Nickel	200.8-Dissolved	mg/L	0.006			0.006			0%
Dissolved Potassium	200.8-Dissolved	mg/L	16			16			0%
Dissolved Sodium	200.8-Dissolved	mg/L	58			59			2%
Dissolved Vanadium	200.8-Dissolved	mg/L	0.005	U	0.01	0.005	U	0.01	0%
Hexavalent Chromium	7196A	mg/L	0.1	UJ	0.1	0.1	UJ	0.1	0%
1,1,1,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,1-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	8260B	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,3-Trichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,4-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,3,5-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,4-Dioxane	8260B	ug/l	50	U	50	50	U	50	0%
2,2-Dichloropropane	8260B	ug/l	2	UJ	2	2	UJ	2	0%

Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			GW-AE-3A			GW-AE-3A-DUP			
Sample Collection Date			4/25/2017			4/25/2017			
Laboratory Sample ID			167944.14			167944.15			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
2-Butanone(MEK)	8260B	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
2-Hexanone	8260B	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	8260B	ug/l	10	U	10	10	U	10	0%
Acetone	8260B	ug/l	10	U	10	10	U	10	0%
Benzene	8260B	ug/l	1			1			0%
Bromobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	8260B	ug/l	2	U	2	2	U	2	0%
Bromomethane	8260B	ug/l	2	UJ	2	2	UJ	2	0%
Carbon disulfide	8260B	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	8260B	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	8260B	ug/l	5			5			0%
Chloroethane	8260B	ug/l	6	J+		6	J+		0%
Chloroform	8260B	ug/l	2	U	2	2	U	2	0%
Chloromethane	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Dibromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Dibromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	8260B	ug/l	11			11			0%
Ethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	8260B	ug/l	5	U	5	5	U	5	0%
Hexachlorobutadiene	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Isopropyl ether(DIPE)	8260B	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Methylene chloride	8260B	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	8260B	ug/l	5	U	5	5	U	5	0%
mp-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
Naphthalene	8260B	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			GW-AE-3A			GW-AE-3A-DUP			
Sample Collection Date			4/25/2017			4/25/2017			
Laboratory Sample ID			167944.14			167944.15			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
n-Propylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
o-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
p-Isopropyltoluene	8260B	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Styrene	8260B	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	8260B	ug/l	5	U	5	5	U	5	0%
tert-Butyl Alcohol (TBA)	8260B	ug/l	30	U	30	30	U	30	0%
tert-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	8260B	ug/l	10	U	10	10	U	10	0%
Toluene	8260B	ug/l	1	U	1	1	U	1	0%
trans-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Trichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dioxane	8260B SIM	ug/l	14		0.25	16		0.25	13%
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	4.17	J		4.44	J		6%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	122			121			1%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	16.8			17.9	J		6%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	387			339			13%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	54.1			45.1			18%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	91.9			87.6			5%
Combination of PFOA and PFOS			478.9			426.6			12%

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Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			DW-25FW			DW-25FW			
Sample Collection Date			1/23/2017			1/23/2017			
Laboratory Sample ID			165073.06			165073.07			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Total Arsenic	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Manganese	200.8-Total	mg/L	0.017			0.018			6%
1,4-Dioxane	8260B SIM	ug/l	0.25	U	0.25	0.25	U	0.25	0%
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	8	U	8	8	U	8	0%
Combination of PFOA and PFOS			ND			ND			

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Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			DW-R-3			DW-R-3-Dup			
Sample Collection Date			1/24/2017			1/24/2017			
Laboratory Sample ID			165168.01			165168.02			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Total Arsenic	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Manganese	200.8-Total	mg/L	0.19			0.19			0%
1,1,1,2-Tetrachloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1,1-Trichloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	524.2	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	524.2	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,2,3-Trichloropropane	524.2	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,2,4-Trimethylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	524.2	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	524.2	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	524.2	ug/l	2	U	2	2	U	2	0%
1,3,5-Trichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	524.2	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,4-Dioxane	524.2	ug/l	50	U	50	50	U	50	0%
2,2-Dichloropropane	524.2	ug/l	2	U	2	2	U	2	0%
2-Butanone(MEK)	524.2	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	524.2	ug/l	2	U	2	2	U	2	0%
2-Hexanone	524.2	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	524.2	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	524.2	ug/l	10	U	10	10	U	10	0%
Acetone	524.2	ug/l	10	U	10	10	U	10	0%
Benzene	524.2	ug/l	1	U	1	1	U	1	0%
Bromobenzene	524.2	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	524.2	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	524.2	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	524.2	ug/l	2	U	2	2	U	2	0%
Bromomethane	524.2	ug/l	2	U	2	2	U	2	0%
Carbon disulfide	524.2	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	524.2	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	524.2	ug/l	2	U	2	2	U	2	0%
Chloroethane	524.2	ug/l	5	U	5	5	U	5	0%
Chloroform	524.2	ug/l	2	U	2	2	U	2	0%
Chloromethane	524.2	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	524.2	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	524.2	ug/l	2	U	2	2	U	2	0%

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			DW-R-3			DW-R-3-Dup			
Sample Collection Date			1/24/2017			1/24/2017			
Laboratory Sample ID			165168.01			165168.02			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Dibromochloromethane	524.2	ug/l	2	U	2	2	U	2	0%
Dibromomethane	524.2	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	524.2	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	524.2	ug/l	5	U	5	5	U	5	0%
Ethylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	524.2	ug/l	5	U	5	5	U	5	0%
Hexachlorobutadiene	524.2	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Isopropyl ether(DIPE)	524.2	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
Methylene chloride	524.2	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	524.2	ug/l	5	U	5	5	U	5	0%
mp-Xylene	524.2	ug/l	1	U	1	1	U	1	0%
Naphthalene	524.2	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
n-Propylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
o-Xylene	524.2	ug/l	1	U	1	1	U	1	0%
p-Isopropyltoluene	524.2	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
Styrene	524.2	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	524.2	ug/l	5	U	5	5	U	5	0%
tert-Butyl Alcohol (TBA)	524.2	ug/l	30	U	30	30	U	30	0%
tert-Butylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	524.2	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	524.2	ug/l	10	U	10	10	U	10	0%
Toluene	524.2	ug/l	1	U	1	1	U	1	0%
trans-1,2-Dichloroethene	524.2	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	524.2	ug/l	2	U	2	2	U	2	0%
Trichloroethene	524.2	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	524.2	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	524.2	ug/l	2	U	2	2	U	2	0%
1,4-Dioxane	8260B SIM	ug/l	0.33			0.34			3%
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	8	U	8	8	U	8	0%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	8	U	8	8	U	8	0%
Combination of PFOA and PFOS			ND			ND			

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Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			GW-GZ-105			GW-GZ-105-DUP			
Sample Collection Date			5/1/2017			5/1/2017			
Laboratory Sample ID			168160.15			168160.18			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Total Antimony	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Arsenic	200.8-Total	mg/L	0.014			0.013			7%
Total Barium	200.8-Total	mg/L	0.044			0.042			5%
Total Beryllium	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Calcium	200.8-Total	mg/L	50			47			6%
Total Chromium	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Iron	200.8-Total	mg/L	3.8			3.5			8%
Total Lead	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Magnesium	200.8-Total	mg/L	19			18			5%
Total Manganese	200.8-Total	mg/L	0.42			0.39			7%
Total Nickel	200.8-Total	mg/L	0.007			0.007			0%
Total Potassium	200.8-Total	mg/L	6.3			6.1			3%
Total Sodium	200.8-Total	mg/L	130			130			0%
Total Vanadium	200.8-Total	mg/L	0.005	U	0.005	0.005	U	0.005	0%
Hexavalent Chromium	7196A	mg/L	0.1	U	0.1	0.1	U	0.1	0%
1,1,1,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,1-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	8260B	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	8260B	ug/l	1	UJ	1	1	UJ	1	0%
1,2,3-Trichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,4-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,3,5-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	8260B	ug/l	3			2			40%
1,4-Dioxane	8260B	ug/l	50	U	50	50	U	50	0%
2,2-Dichloropropane	8260B	ug/l	2	UJ	2	2	UJ	2	0%
2-Butanone(MEK)	8260B	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
2-Hexanone	8260B	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	8260B	ug/l	10	U	10	10	U	10	0%
Acetone	8260B	ug/l	10	UJ	10	10	UJ	10	0%

Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			GW-GZ-105			GW-GZ-105-DUP			
Sample Collection Date			5/1/2017			5/1/2017			
Laboratory Sample ID			168160.15			168160.18			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Benzene	8260B	ug/l	4			4			0%
Bromobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	8260B	ug/l	2	UJ	2	2	UJ	2	0%
Bromomethane	8260B	ug/l	2	UJ	2	2	UJ	2	0%
Carbon disulfide	8260B	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	8260B	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	8260B	ug/l	6			6			0%
Chloroethane	8260B	ug/l	7		5	7		5	0%
Chloroform	8260B	ug/l	2	U	2	2	U	2	0%
Chloromethane	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Dibromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Dibromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	8260B	ug/l	42			42			0%
Ethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	8260B	ug/l	5	UJ	5	5	UJ	5	0%
Hexachlorobutadiene	8260B	ug/l	0.5	UJ	0.5	0.5	UJ	0.5	0%
Isopropyl ether(DIPE)	8260B	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	8260B	ug/l	1		1	1		1	0%
Methylene chloride	8260B	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	8260B	ug/l	5	U	5	5	U	5	0%
mp-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
Naphthalene	8260B	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
n-Propylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
o-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
p-Isopropyltoluene	8260B	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Styrene	8260B	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	8260B	ug/l	5	UJ	5	5	UJ	5	0%
tert-Butyl Alcohol (TBA)	8260B	ug/l	30	UJ	30	30	UJ	30	0%
tert-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	8260B	ug/l	30			30			0%
Toluene	8260B	ug/l	1	U	1	1	U	1	0%
trans-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Trichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dioxane	8260B SIM	ug/l	65			67			3%

Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			GW-GZ-105			GW-GZ-105-DUP			
Sample Collection Date			5/1/2017			5/1/2017			
Laboratory Sample ID			168160.15			168160.18			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	13.4	J		14.9	J		11%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	123			140			13%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	66.4			64.1			4%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	340			425			22%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	19.8			23.4			17%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	163			211			26%
Combination of PFOA and PFOS			503			636			23%

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Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			GW-MW-4			GW-MW-4-DUP			
Sample Collection Date			5/1/2017			5/1/2017			
Laboratory Sample ID			168160.05			168160.06			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Dissolved Antimony	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Arsenic	200.8-Dissolved	mg/L	0.046			0.042			9%
Dissolved Barium	200.8-Dissolved	mg/L	0.076			0.067			13%
Dissolved Beryllium	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Calcium	200.8-Dissolved	mg/L	68			60			13%
Dissolved Chromium	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Iron	200.8-Dissolved	mg/L	26			23			12%
Dissolved Lead	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Magnesium	200.8-Dissolved	mg/L	22			19			15%
Dissolved Manganese	200.8-Dissolved	mg/L	1.2			1.1			9%
Dissolved Nickel	200.8-Dissolved	mg/L	0.009			0.008			12%
Dissolved Potassium	200.8-Dissolved	mg/L	35			32			9%
Dissolved Sodium	200.8-Dissolved	mg/L	37			34			8%
Dissolved Vanadium	200.8-Dissolved	mg/L	0.005	U	0.005	0.005	U	0.005	0%
Hexavalent Chromium	7196A	mg/L	0.1	U	0.1	0.1	U	0.1	0%
1,4-Dioxane	8260B SIM	ug/l	4.6			4.6			0%
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	8.41	J		7.82	J		7%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	707			709			0%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	35.7			31.3			13%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	1240	D		1050	D		17%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	59.8			54.5			9%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	55.8			60.6			8%
Combination of PFOA and PFOS			1296			1111			15%

Notes on first page of table

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			L-L-1			L-L-1-DUP			
Sample Collection Date			4/28/2017			4/28/2017			
Laboratory Sample ID			168017.24			168017.25			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Dissolved Aluminum	200.8	mg/L	0.08			0.07			13%
Dissolved Antimony	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Arsenic	200.8	mg/L	0.002			0.002			0%
Dissolved Barium	200.8	mg/L	0.011			0.01			10%
Dissolved Beryllium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Cadmium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Calcium	200.8	mg/L	17			16			6%
Dissolved Chromium	200.8	mg/L	0.001	U	0.001	0.001		0.001	0%
Dissolved Cobalt	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Copper	200.8	mg/L	0.009			0.008			12%
Dissolved Iron	200.8	mg/L	2.8			2.5			11%
Dissolved Lead	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Magnesium	200.8	mg/L	3.4			3.1			9%
Dissolved Manganese	200.8	mg/L	0.4			0.37			8%
Dissolved Mercury	200.8	mg/L	0.0001	U	0.0001	0.0001	U	0.0001	0%
Dissolved Nickel	200.8	mg/L	0.004			0.003			29%
Dissolved Potassium	200.8	mg/L	5.2			5.3			2%
Dissolved Selenium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Silver	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Sodium	200.8	mg/L	8			8			0%
Dissolved Thallium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Vanadium	200.8	mg/L	0.005	U	0.005	0.005	U	0.005	0%
Dissolved Zinc	200.8	mg/L	0.038			0.034			11%
1,1,1,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,1-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	8260B	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,3-Trichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	8260B	ug/l	1	UJ	1	1	UJ	1	0%
1,2,4-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,3,5-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,4-Dioxane	8260B	ug/l	50	U	50	50	U	50	0%

Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			L-L-1			L-L-1-DUP			
Sample Collection Date			4/28/2017			4/28/2017			
Laboratory Sample ID			168017.24			168017.25			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
2,2-Dichloropropane	8260B	ug/l	2	UJ	2	2	UJ	2	0%
2-Butanone(MEK)	8260B	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
2-Hexanone	8260B	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	8260B	ug/l	10	U	10	10	U	10	0%
Acetone	8260B	ug/l	10	UJ	10	10	UJ	10	0%
Benzene	8260B	ug/l	1	U	1	1	U	1	0%
Bromobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	8260B	ug/l	2	UJ	2	2	UJ	2	0%
Bromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Carbon disulfide	8260B	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	8260B	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
Chloroethane	8260B	ug/l	5	U	5	5	U	5	0%
Chloroform	8260B	ug/l	2	U	2	2	U	2	0%
Chloromethane	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Dibromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Dibromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	8260B	ug/l	5	U	5	5	U	5	0%
Ethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	8260B	ug/l	5	UJ	5	5	UJ	5	0%
Hexachlorobutadiene	8260B	ug/l	0.5	UJ	0.5	0.5	UJ	0.5	0%
Isopropyl ether(DIPE)	8260B	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Methylene chloride	8260B	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	8260B	ug/l	5	U	5	5	U	5	0%
mp-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
Naphthalene	8260B	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
n-Propylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
o-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
p-Isopropyltoluene	8260B	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Styrene	8260B	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	8260B	ug/l	5	UJ	5	5	UJ	5	0%
tert-Butyl Alcohol (TBA)	8260B	ug/l	30	UJ	30	30	UJ	30	0%
tert-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	8260B	ug/l	10	U	10	10	U	10	0%
Toluene	8260B	ug/l	1	U	1	1	U	1	0%

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			L-L-1			L-L-1-DUP			
Sample Collection Date			4/28/2017			4/28/2017			
Laboratory Sample ID			168017.24			168017.25			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
trans-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Trichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	8260B	ug/l	2	U	2	2	U	2	0%
Ammonia-N	TM NH3-001	mg/L	1.5			1.3			14%
COD	H8000	mg/L	28			33			16%
1,4-Dioxane	8260B SIM	ug/l	1.5			1.3			14%
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	2.09	U		2.13	U		2%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	175			170			3%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	9.12	J		9.39	J		3%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	656			736			11%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	308			310			1%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	1930	J		1560	J		21%
Combination of PFOA and PFOS			2586			2296			12%

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Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			SW-SW-5			SW-SW-5-DUP			
Sample Collection Date			5/2/2017			5/2/2017			
Laboratory Sample ID			168160.22			168160.24			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Dissolved Aluminum	200.8	mg/L	0.05	U	0.05	0.05	U	0.05	0%
Dissolved Antimony	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Arsenic	200.8	mg/L	0.001			0.001			0%
Dissolved Barium	200.8	mg/L	0.009			0.009			0%
Dissolved Beryllium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Cadmium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Calcium	200.8	mg/L	21			21			0%
Dissolved Chromium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Cobalt	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Copper	200.8	mg/L	0.002			0.001			67%
Dissolved Iron	200.8	mg/L	0.92			0.93			1%
Dissolved Lead	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Magnesium	200.8	mg/L	4.9			4.8			2%
Dissolved Manganese	200.8	mg/L	0.22			0.22			0%
Dissolved Mercury	200.8	mg/L	0.0001	U	0.0001	0.0001	U	0.0001	0%
Dissolved Nickel	200.8	mg/L	0.002			0.002			0%
Dissolved Potassium	200.8	mg/L	5.5			5.5			0%
Dissolved Selenium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Silver	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Sodium	200.8	mg/L	15			14			7%
Dissolved Thallium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Vanadium	200.8	mg/L	0.005	U	0.005	0.005	U	0.005	0%
Dissolved Zinc	200.8	mg/L	0.007			0.006			15%
1,1,1,2-Tetrachloroethane	8260B	ug/l	2	UJ	2	2	UJ	2	0%
1,1,1-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	8260B	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,3-Trichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,4-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,3,5-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,4-Dioxane	8260B	ug/l	50	U	50	50	U	50	0%

Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			SW-SW-5			SW-SW-5-DUP			
Sample Collection Date			5/2/2017			5/2/2017			
Laboratory Sample ID			168160.22			168160.24			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
2,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
2-Butanone(MEK)	8260B	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
2-Hexanone	8260B	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	8260B	ug/l	10	U	10	10	U	10	0%
Acetone	8260B	ug/l	10	U	10	10	U	10	0%
Benzene	8260B	ug/l	1	U	1	1	U	1	0%
Bromobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	8260B	ug/l	2	UJ	2	2	UJ	2	0%
Bromomethane	8260B	ug/l	2	UJ	2	2	UJ	2	0%
Carbon disulfide	8260B	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	8260B	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Chloroethane	8260B	ug/l	5	U	5	5	U	5	0%
Chloroform	8260B	ug/l	2	U	2	2	U	2	0%
Chloromethane	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Dibromochloromethane	8260B	ug/l	2	UJ	2	2	UJ	2	0%
Dibromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	8260B	ug/l	5	U	5	5	U	5	0%
Ethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	8260B	ug/l	5	U	5	5	U	5	0%
Hexachlorobutadiene	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Isopropyl ether(DIPE)	8260B	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Methylene chloride	8260B	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	8260B	ug/l	5	U	5	5	U	5	0%
mp-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
Naphthalene	8260B	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
n-Propylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
o-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
p-Isopropyltoluene	8260B	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Styrene	8260B	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	8260B	ug/l	5	U	5	5	U	5	0%
tert-Butyl Alcohol (TBA)	8260B	ug/l	30	U	30	30	U	30	0%
tert-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	8260B	ug/l	10	U	10	10	U	10	0%
Toluene	8260B	ug/l	1	U	1	1	U	1	0%

Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			SW-SW-5			SW-SW-5-DUP			
Sample Collection Date			5/2/2017			5/2/2017			
Laboratory Sample ID			168160.22			168160.24			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
trans-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	8260B	ug/l	2	UJ	2	2	UJ	2	0%
Trichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	8260B	ug/l	2	U	2	2	U	2	0%
Ammonia-N	TM NH3-001	mg/L	0.05	U	0.05	0.05	U	0.05	0%
1,4-Dioxane	8260B SIM	ug/l	0.59			0.63			7%
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	2.3	U	2.3	2.07	U	2.07	11%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	222			218			2%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	13.8	J		13.3	J		4%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	794	J		742	J		7%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	296			308			4%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	391	JD		770	JD		65%
Combination of PFOA and PFOS			1185			1512			24%

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Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			S-SED-5			S-SED-5-DUP			
Sample Collection Date			5/2/2017			5/2/2017			
Laboratory Sample ID			168160.23			168160.25			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Solids Total	2540G-91	Percent	23.6			22.7			4%
Total Aluminum	6020	mg/kg	11000			12000			9%
Total Antimony	6020	mg/kg	1.9			2			5%
Total Arsenic	6020	mg/kg	12			13			8%
Total Barium	6020	mg/kg	110			120			9%
Total Beryllium	6020	mg/kg	0.7			0.7			0%
Total Cadmium	6020	mg/kg	0.6			0.6			0%
Total Calcium	6020	mg/kg	7000			7700			10%
Total Chromium	6020	mg/kg	23			23			0%
Total Cobalt	6020	mg/kg	6.9			7.7			11%
Total Copper	6020	mg/kg	36			37			3%
Total Iron	6020	mg/kg	15000			16000			6%
Total Lead	6020	mg/kg	68			65			5%
Total Magnesium	6020	mg/kg	3000			3100			3%
Total Manganese	6020	mg/kg	290			310			7%
Total Mercury	6020	mg/kg	0.5			1			67%
Total Nickel	6020	mg/kg	20			21			5%
Total Potassium	6020	mg/kg	2900			2900			0%
Total Selenium	6020	mg/kg	1.5			1.5			0%
Total Silver	6020	mg/kg	0.5	U	0.5	0.5	U	0.5	0%
Total Sodium	6020	mg/kg	300			300			0%
Total Thallium	6020	mg/kg	0.5	U	0.5	0.5	U	0.5	0%
Total Vanadium	6020	mg/kg	37			37			0%
Total Zinc	6020	mg/kg	80			82			2%
1,4-Dioxane	8260B SIM	ug/l	0.4	U	0.4	0.5	U	0.5	22%
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	1.22	U	1.22	1.23	U	1.23	1%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	3.37	J		3.5	J		4%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	1.29	U	1.29	1.3	UJ	1.3	1%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	16.9			17.1	J		1%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	20.9			22.5			7%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	152	JD		164	JD		8%
Combination of PFOA and PFOS			168.9			181.1			7%

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Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

DUPLICATE COMPARISON TABLE NOTES

ABBREVIATIONS

U	Not Detected
UJ	Not Detected, detection limit estimated
J	Laboratory estimated value
J-	Laboratory estimated value, biased low
J+	Laboratory estimated value, biased high
R	Rejected based on data validation
EB	Parameter Detected in Equipment Blank

NOTES

1. Primary/Duplicate sample pairs were evaluated for reproducibility to assess whether the sampling methods provide reproducible data. The relative percent difference (RPD) acceptance criteria is described in the September 2017 Sampling and Analysis Plan Table 4-3 (Field Quality Control Requirements).
2. Acceptance criteria for duplicates are ± 30% for aqueous samples and ± 50% for solid samples.
3. Exceedances of the acceptance criteria are shaded.
4. A Tier I Plus data validation was completed on the data set and laboratory results were qualified in accordance with the September 2017 Sampling and Analysis Plan. The flags (Qualifiers) listed in the duplicate comparison tables are based on the results of the Tier 1 Plus data validation.

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			GW-AE-3A			GW-AE-3A-DUP			
Sample Collection Date			9/14/2017			9/14/2017			
Laboratory Sample ID			1701265-19			1701265-18			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Dissolved Antimony	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Arsenic	200.8-Dissolved	mg/L	0.11			0.11			0%
Dissolved Barium	200.8-Dissolved	mg/L	0.065			0.063			3%
Dissolved Beryllium	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Calcium	200.8-Dissolved	mg/L	43			42			2%
Dissolved Chromium	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Iron	200.8-Dissolved	mg/L	23			23			0%
Dissolved Lead	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Magnesium	200.8-Dissolved	mg/L	19			19			0%
Dissolved Manganese	200.8-Dissolved	mg/L	1.3			1.3			0%
Dissolved Nickel	200.8-Dissolved	mg/L	0.007			0.007			0%
Dissolved Potassium	200.8-Dissolved	mg/L	17			17			0%
Dissolved Sodium	200.8-Dissolved	mg/L	62			61			2%
Dissolved Vanadium	200.8-Dissolved	mg/L	0.005	U	0.005	0.005	U	0.005	0%
Hexavalent Chromium	7196A	mg/L	0.1	R	0.1	0.1	R	0.1	0%
1,1,1,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,1-Trichloroethane	8260B	ug/L	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	8260B	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,3-Trichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,4-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,3,5-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,4-Dioxane	8260B	ug/l	50	U	50	50	U	50	0%
2,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			GW-AE-3A			GW-AE-3A-DUP			
Sample Collection Date			9/14/2017			9/14/2017			
Laboratory Sample ID			1701265-19			1701265-18			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
2-Butanone(MEK)	8260B	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
2-Hexanone	8260B	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	8260B	ug/l	10	U	10	10	U	10	0%
Acetone	8260B	ug/l	10	U	10	10	U	10	0%
Benzene	8260B	ug/l	1			1			0%
Bromobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	8260B	ug/l	2	U	2	2	U	2	0%
Bromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Carbon disulfide	8260B	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	8260B	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	8260B	ug/l	6			6			0%
Chloroethane	8260B	ug/l	7			7			0%
Chloroform	8260B	ug/l	2	U	2	2	U	2	0%
Chloromethane	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Dibromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Dibromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	8260B	ug/l	13			12			8%
Ethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	8260B	ug/l	5	U	5	5	U	5	0%
Hexachlorobutadiene	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Isopropyl ether(DIPE)	8260B	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Methylene chloride	8260B	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	8260B	ug/l	5	U	5	5	U	5	0%
mp-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
Naphthalene	8260B	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			GW-AE-3A			GW-AE-3A-DUP			
Sample Collection Date			9/14/2017			9/14/2017			
Laboratory Sample ID			1701265-19			1701265-18			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
n-Propylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
o-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
p-Isopropyltoluene	8260B	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Styrene	8260B	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	8260B	ug/l	5	U	5	5	U	5	0%
tert-Butyl Alcohol (TBA)	8260B	ug/l	30	U	30	30	U	30	0%
tert-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	8260B	ug/l	10	U	10	10	U	10	0%
Toluene	8260B	ug/l	1	U	1	1	U	1	0%
trans-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Trichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dioxane	8260B SIM	ug/l	18		0.25	19		0.25	5%
Laboratory Sample ID			1701265-19			1701265-18			
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	4.63	J	2.27	5.04	J	2.26	8%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	98.3		2.67	85		2.66	15%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	17.8	J	1.21	18.4		1.2	3%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	224	J	1.19	247		1.18	10%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	47.3	J	2.16	44.2		2.15	7%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	76.8		1.08	76.3		1.08	1%
Combination of PFOA and PFOS			300.8			323.3			7%

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Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			DW-21SMW			DW-21SMW Dup			
Sample Collection Date			9/12/2017			9/12/2017			
Laboratory Sample ID			173526.01			173526.02			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Total Arsenic	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Manganese	200.8-Total	mg/L	0.07			0.07			0%
1,4-Dioxane	8260B SIM	ug/l	0.25	U	0.25	0.25	U	0.25	0%
Laboratory Sample ID			1701265-30			1701265-35			
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	2.24	U	2.24	2.27	U	2.27	1%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	2.64	U	2.64	2.67	U	2.67	1%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	1.2	U	1.2	1.21	U	1.21	1%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	2.21	J		1.19	U	1.19	60%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	2.14	U	2.14	2.16	U	2.16	1%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	1.07	U	1.07	1.08	U	1.08	1%
Combination of PFOA and PFOS			2.21	J		ND			

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Table 7

Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			DW-R-3			DW-R-3 Dup			
Sample Collection Date			9/14/2017			9/14/2017			
Laboratory Sample ID			173526.15			173526.16			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Total Arsenic	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Manganese	200.8-Total	mg/L	0.15			0.14			7%
1,1,1,2-Tetrachloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1,1-Trichloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	524.2	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	524.2	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,2,3-Trichloropropane	524.2	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,2,4-Trimethylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	524.2	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	524.2	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	524.2	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	524.2	ug/l	2	U	2	2	U	2	0%
1,3,5-Trichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	524.2	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
1,4-Dioxane	524.2	ug/l	50	U	50	50	U	50	0%
2,2-Dichloropropane	524.2	ug/l	2	U	2	2	U	2	0%
2-Butanone(MEK)	524.2	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	524.2	ug/l	2	U	2	2	U	2	0%
2-Hexanone	524.2	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	524.2	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	524.2	ug/l	10	U	10	10	U	10	0%
Acetone	524.2	ug/l	10	U	10	10	U	10	0%
Benzene	524.2	ug/l	1	U	1	1	U	1	0%
Bromobenzene	524.2	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	524.2	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	524.2	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	524.2	ug/l	2	U	2	2	U	2	0%
Bromomethane	524.2	ug/l	2	U	2	2	U	2	0%
Carbon disulfide	524.2	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	524.2	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	524.2	ug/l	1	U	1	1	U	1	0%
Chloroethane	524.2	ug/l	5	U	5	5	U	5	0%
Chloroform	524.2	ug/l	2	U	2	2	U	2	0%
Chloromethane	524.2	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	524.2	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	524.2	ug/l	2	U	2	2	U	2	0%
Dibromochloromethane	524.2	ug/l	2	U	2	2	U	2	0%
Dibromomethane	524.2	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	524.2	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	524.2	ug/l	5	U	5	5	U	5	0%
Ethylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	524.2	ug/l	5	U	5	5	U	5	0%
Hexachlorobutadiene	524.2	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Isopropyl ether(DIPE)	524.2	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
Methylene chloride	524.2	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	524.2	ug/l	5	U	5	5	U	5	0%
mp-Xylene	524.2	ug/l	1	U	1	1	U	1	0%
Naphthalene	524.2	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
n-Propylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
o-Xylene	524.2	ug/l	1	U	1	1	U	1	0%
p-Isopropyltoluene	524.2	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
Styrene	524.2	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	524.2	ug/l	5	U	5	5	U	5	0%
tert-Butyl Alcohol (TBA)	524.2	ug/l	30	U	30	30	U	30	0%
tert-Butylbenzene	524.2	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	524.2	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	524.2	ug/l	10	U	10	10	U	10	0%
Toluene	524.2	ug/l	1	U	1	1	U	1	0%
trans-1,2-Dichloroethene	524.2	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	524.2	ug/l	2	U	2	2	U	2	0%
Trichloroethene	524.2	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	524.2	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	524.2	ug/l	2	U	2	2	U	2	0%

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			DW-R-3			DW-R-3 Dup			
Sample Collection Date			9/14/2017			9/14/2017			
Laboratory Sample ID			173526.15			173526.16			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
1,4-Dioxane	8260B SIM	ug/l	0.28		0.25	0.32		0.25	13%
Laboratory Sample ID			1701265-01			1701265-02			
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	2.3	U	2.3	2.32	U	2.32	1%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	2.72	U	2.72	2.74	U	2.74	1%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	1.23	U	1.23	1.24	U	1.24	1%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	2.03	J		1.22	U	1.22	50%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	2.2	U	2.2	2.21	U	2.21	0%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	1.1	U	1.1	1.11	U	1.11	1%
Combination of PFOA and PFOS			2.03	J		ND			

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Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			GW-GZ-105			GW-GZ-105-DUP			
Sample Collection Date			9/19/2017			9/19/2017			
Laboratory Sample ID			173571.29			173571.3			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Total Antimony	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Arsenic	200.8-Total	mg/L	0.012			0.012			0%
Total Barium	200.8-Total	mg/L	0.039			0.04			3%
Total Beryllium	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Calcium	200.8-Total	mg/L	45			47			4%
Total Chromium	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Iron	200.8-Total	mg/L	3.6			3.5			3%
Total Lead	200.8-Total	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Total Magnesium	200.8-Total	mg/L	18			19			5%
Total Manganese	200.8-Total	mg/L	0.41			0.43			5%
Total Nickel	200.8-Total	mg/L	0.007			0.007			0%
Total Potassium	200.8-Total	mg/L	5.8			6			3%
Total Sodium	200.8-Total	mg/L	130			130			0%
Total Vanadium	200.8-Total	mg/L	0.005	U	0.005	0.005	U	0.005	0%
Hexavalent Chromium	7196A	mg/L	0.1	U	0.1	0.1	U	0.1	0%
1,1,1,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,1-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	8260B	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,3-Trichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,4-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,3,5-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	8260B	ug/l	2			2			0%
1,4-Dioxane	8260B	ug/l	50	U	50	50	U	50	0%
2,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
2-Butanone(MEK)	8260B	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
2-Hexanone	8260B	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	8260B	ug/l	10	U	10	10	U	10	0%
Acetone	8260B	ug/l	10	U	10	10	U	10	0%
Benzene	8260B	ug/l	3			3			0%
Bromobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	8260B	ug/l	2	U	2	2	U	2	0%
Bromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Carbon disulfide	8260B	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	8260B	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	8260B	ug/l	5			5			0%
Chloroethane	8260B	ug/l	5	U	5	5	U	5	0%
Chloroform	8260B	ug/l	2	U	2	2	U	2	0%
Chloromethane	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Dibromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Dibromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	8260B	ug/l	28			28			0%
Ethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	8260B	ug/l	5	U	5	5	U	5	0%
Hexachlorobutadiene	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Isopropyl ether(DIPE)	8260B	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Methylene chloride	8260B	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	8260B	ug/l	5	U	5	5	U	5	0%
mp-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
Naphthalene	8260B	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
n-Propylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
o-Xylene	8260B	ug/l	1	U	1	1	U	1	0%

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			GW-GZ-105			GW-GZ-105-DUP			
Sample Collection Date			9/19/2017			9/19/2017			
Laboratory Sample ID			173571.29			173571.3			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
p-Isopropyltoluene	8260B	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Styrene	8260B	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	8260B	ug/l	5	U	5	5	U	5	0%
tert-Butyl Alcohol (TBA)	8260B	ug/l	30	U	30	30	U	30	0%
tert-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	8260B	ug/l	20			20			0%
Toluene	8260B	ug/l	1	U	1	1	U	1	0%
trans-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Trichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dioxane	8260B SIM	ug/l	54		0.25	51		0.25	6%
Laboratory Sample ID			1701265-52			1701265-53			
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	10.2	J	2.31	9.88	J	2.37	3%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	90.9		2.73	96.4		2.79	6%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	37		1.23	43.1		1.26	15%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	220		1.21	226		1.24	3%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	22.4		2.2	26.4		2.26	16%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	141		1.1	145		1.13	3%
Combination of PFOA and PFOS			361			371			3%

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Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			GW-MW-4			GW-MW-4-DUP			
Sample Collection Date			9/19/2017			9/19/2017			
Laboratory Sample ID			173571.04			173571.08			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Dissolved Antimony	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Arsenic	200.8-Dissolved	mg/L	0.051			0.049			4%
Dissolved Barium	200.8-Dissolved	mg/L	0.059			0.061			3%
Dissolved Beryllium	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Calcium	200.8-Dissolved	mg/L	65			68			5%
Dissolved Chromium	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Iron	200.8-Dissolved	mg/L	25			26			4%
Dissolved Lead	200.8-Dissolved	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Magnesium	200.8-Dissolved	mg/L	20			21			5%
Dissolved Manganese	200.8-Dissolved	mg/L	1.2			1.3			8%
Dissolved Nickel	200.8-Dissolved	mg/L	0.008			0.008			0%
Dissolved Potassium	200.8-Dissolved	mg/L	28			29			4%
Dissolved Sodium	200.8-Dissolved	mg/L	28			29			4%
Dissolved Vanadium	200.8-Dissolved	mg/L	0.005	U	0.005	0.005	U	0.005	0%
Hexavalent Chromium	7196A	mg/L	0.1	U	0.1	0.1	U	0.1	0%
1,4-Dioxane	8260B SIM	ug/l	7.2	J	0.25	2.4	J	0.25	100%
Laboratory Sample ID			1701265-74			1701265-75			
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	11.3	J+	2.37	8.05	J+	2.26	34%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	431		2.79	427		2.67	1%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	31.4		1.26	40.5		1.21	25%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	758		1.24	887		1.19	16%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	28.1		2.26	25.5		2.16	10%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	27		1.13	25.5		1.08	6%
Combination of PFOA and PFOS			785			912.5			15%

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Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			L-L-1			L-L-1-DUP			
Sample Collection Date			9/21/2017			9/21/2017			
Laboratory Sample ID			173571.32			173571.33			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Dissolved Aluminum	200.8	mg/L	0.1	U		0.1	U		0%
Dissolved Antimony	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Arsenic	200.8	mg/L	0.005			0.005			0%
Dissolved Barium	200.8	mg/L	0.075			0.078			4%
Dissolved Beryllium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Cadmium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Calcium	200.8	mg/L	57			57			0%
Dissolved Chromium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Cobalt	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Copper	200.8	mg/L	0.001	U		0.001	U		0%
Dissolved Iron	200.8	mg/L	32			33			3%
Dissolved Lead	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Magnesium	200.8	mg/L	18			19			5%
Dissolved Manganese	200.8	mg/L	2.8			2.9			4%
Dissolved Mercury	200.8	mg/L	0.0002	U	0.0002	0.0002	U	0.0002	0%
Dissolved Nickel	200.8	Prima	0.005			0.005			0%
Dissolved Potassium	200.8	mg/L	25			26			4%
Dissolved Selenium	200.8	mg/L	0.004		0.001	0.004		0.001	0%
Dissolved Silver	200.8	A Tier	0.001	UJ	0.001	0.001	UJ	0.001	0%
Dissolved Sodium	200.8	mg/L	65			71			9%
Dissolved Thallium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Vanadium	200.8	mg/L	0.005	U	0.005	0.005	U	0.005	0%
Dissolved Zinc	200.8	mg/L	0.005	U		0.005	U		0%
1,1,1,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,1-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	8260B	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,3-Trichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,4-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,3,5-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	8260B	ug/l	2		1	2		1	0%
1,4-Dioxane	8260B	ug/l	50	U	50	50	U	50	0%
2,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
2-Butanone(MEK)	8260B	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
2-Hexanone	8260B	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	8260B	ug/l	10	U	10	10	U	10	0%
Acetone	8260B	ug/l	10	U	10	10	U	10	0%
Benzene	8260B	ug/l	1		1	1		1	0%
Bromobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	8260B	ug/l	2	U	2	2	U	2	0%
Bromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Carbon disulfide	8260B	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	8260B	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	8260B	ug/l	2		1	2		1	0%
Chloroethane	8260B	ug/l	5	U	5	5	U	5	0%
Chloroform	8260B	ug/l	2	U	2	2	U	2	0%
Chloromethane	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Dibromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Dibromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	8260B	ug/l	7		5	7		5	0%
Ethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	8260B	ug/l	5	U	5	5	U	5	0%
Hexachlorobutadiene	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Isopropyl ether(DIPE)	8260B	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	8260B	ug/l	1	U	1	1	U	1	0%

Table 7

Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			L-L-1			L-L-1-DUP			
Sample Collection Date			9/21/2017			9/21/2017			
Laboratory Sample ID			173571.32			173571.33			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Methylene chloride	8260B	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	8260B	ug/l	5	U	5	5	U	5	0%
mp-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
Naphthalene	8260B	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
n-Propylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
o-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
p-Isopropyltoluene	8260B	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Styrene	8260B	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	8260B	ug/l	5	U	5	5	U	5	0%
tert-Butyl Alcohol (TBA)	8260B	ug/l	30	U	30	30	U	30	0%
tert-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	8260B	ug/l	10	U	10	10	U	10	0%
Toluene	8260B	ug/l	1	U	1	1	U	1	0%
trans-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Trichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	8260B	ug/l	2	U	2	2	U	2	0%
Ammonia-N	TM NH3-0(	mg/L	55			48			14%
COD	H8000	mg/L	19			19			0%
1,4-Dioxane	8260B SIM	ug/l	17			18			6%
Laboratory Sample ID			1701265-85			1701265-86			
Perfluorobutanesulfonic acid (PFBS)	537 Modifie	ng/L	4.85	J		5.5	J		13%
Perfluoroheptanoic acid (PFHpA)	537 Modifie	ng/L	111			109			2%
Perfluorohexanesulfonic acid (PFHxS)	537 Modifie	ng/L	19	J		19.4	J		2%
Perfluorooctanoic acid (PFOA)	537 Modifie	ng/L	319			310			3%
Perfluorononanoic acid (PFNA)	537 Modifie	ng/L	70.3			75.6			7%
Perfluorooctanesulfonic (PFOS)	537 Modifie	ng/L	164			150			9%
Combination of PFOA and PFOS			483			460			5%

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Table 7
Duplicate Comparisons
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Sample ID			SW-SW-5			SW-SW-5-DUP			
Sample Collection Date			9/19/2017			9/19/2017			
Laboratory Sample ID			173571.36			173571.37			Relative Percent
Parameter	Method	Units	Result	Flag	RL	Result	Flag	RL	Difference (RPD)
Dissolved Aluminum	200.8	mg/L	0.1	U	0.1	0.1	U	0.1	0%
Dissolved Antimony	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Arsenic	200.8	mg/L	0.003			0.003			0%
Dissolved Barium	200.8	mg/L	0.02			0.019			5%
Dissolved Beryllium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Cadmium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Calcium	200.8	mg/L	36			35			3%
Dissolved Chromium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Cobalt	200.8	mg/L	0.001		0.001	0.001		0.001	0%
Dissolved Copper	200.8	mg/L	0.001	U		0.001			0%
Dissolved Iron	200.8	mg/L	0.78			0.7			11%
Dissolved Lead	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Magnesium	200.8	mg/L	9.6			9.5			1%
Dissolved Manganese	200.8	mg/L	3			3			0%
Dissolved Mercury	200.8	mg/L	0.0002	U	0.0002	0.0002	U	0.0002	0%
Dissolved Nickel	200.8	mg/L	0.004			0.004			0%
Dissolved Potassium	200.8	mg/L	12			12			0%
Dissolved Selenium	200.8	mg/L	0.002		0.001	0.001		0.001	67%
Dissolved Silver	200.8	mg/L	0.001	UJ	0.001	0.001	UJ	0.001	0%
Dissolved Sodium	200.8	mg/L	30			30			0%
Dissolved Thallium	200.8	mg/L	0.001	U	0.001	0.001	U	0.001	0%
Dissolved Vanadium	200.8	mg/L	0.005	U	0.005	0.005	U	0.005	0%
Dissolved Zinc	200.8	mg/L	0.005	U		0.007			33%
1,1,1,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,1-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2,2-Tetrachloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1,2-Trichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,1-Dichloroethene	8260B	ug/l	1	U	1	1	U	1	0%
1,1-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
1,2,3-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,3-Trichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2,4-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2,4-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dibromo-3-chloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dibromoethane(EDB)	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,2-Dichloroethane	8260B	ug/l	2	U	2	2	U	2	0%
1,2-Dichloropropane	8260B	ug/l	2	UJ	2	2	UJ	2	0%
1,3,5-Trichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3,5-Trimethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,3-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
1,4-Dichlorobenzene	8260B	ug/l	1	U	1	1	U	1	0%
1,4-Dioxane	8260B	ug/l	50	U	50	50	U	50	0%
2,2-Dichloropropane	8260B	ug/l	2	U	2	2	U	2	0%
2-Butanone(MEK)	8260B	ug/l	10	U	10	10	U	10	0%
2-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
2-Hexanone	8260B	ug/l	10	U	10	10	U	10	0%
4-Chlorotoluene	8260B	ug/l	2	U	2	2	U	2	0%
4-Methyl-2-pentanone(MIBK)	8260B	ug/l	10	U	10	10	U	10	0%
Acetone	8260B	ug/l	10	U	10	10	U	10	0%
Benzene	8260B	ug/l	1	UJ	1	1	UJ	1	0%
Bromobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Bromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Bromodichloromethane	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Bromoform	8260B	ug/l	2	U	2	2	U	2	0%
Bromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Carbon disulfide	8260B	ug/l	5	U	5	5	U	5	0%
Carbon tetrachloride	8260B	ug/l	2	U	2	2	U	2	0%
Chlorobenzene	8260B	ug/l	2	U	2	2	U	2	0%
Chloroethane	8260B	ug/l	5	U	5	5	U	5	0%
Chloroform	8260B	ug/l	2	U	2	2	U	2	0%
Chloromethane	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
cis-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Dibromochloromethane	8260B	ug/l	2	U	2	2	U	2	0%
Dibromomethane	8260B	ug/l	2	U	2	2	U	2	0%
Dichlorodifluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Diethyl Ether	8260B	ug/l	5	UJ	5	5	UJ	5	0%
Ethylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Ethyl-t-butyl ether(ETBE)	8260B	ug/l	5	U	5	5	U	5	0%
Hexachlorobutadiene	8260B	ug/l	0.5	U	0.5	0.5	U	0.5	0%
Isopropyl ether(DIPE)	8260B	ug/l	5	U	5	5	U	5	0%
IsoPropylbenzene	8260B	ug/l	1	U	1	1	U	1	0%

Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			SW-SW-5			SW-SW-5-DUP			
Sample Collection Date			9/19/2017			9/19/2017			
Laboratory Sample ID			173571.36			173571.37			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Methylene chloride	8260B	ug/l	5	U	5	5	U	5	0%
Methyl-t-butyl ether(MTBE)	8260B	ug/l	5	U	5	5	U	5	0%
mp-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
Naphthalene	8260B	ug/l	5	U	5	5	U	5	0%
n-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
n-Propylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
o-Xylene	8260B	ug/l	1	U	1	1	U	1	0%
p-Isopropyltoluene	8260B	ug/l	1	U	1	1	U	1	0%
sec-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Styrene	8260B	ug/l	1	U	1	1	U	1	0%
tert-amyl methyl ether(TAME)	8260B	ug/l	5	U	5	5	U	5	0%
tert-Butyl Alcohol (TBA)	8260B	ug/l	30	U	30	30	U	30	0%
tert-Butylbenzene	8260B	ug/l	1	U	1	1	U	1	0%
Tetrachloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Tetrahydrofuran(THF)	8260B	ug/l	10	U	10	10	U	10	0%
Toluene	8260B	ug/l	1	U	1	1	U	1	0%
trans-1,2-Dichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
trans-1,3-Dichloropropene	8260B	ug/l	2	U	2	2	U	2	0%
Trichloroethene	8260B	ug/l	2	U	2	2	U	2	0%
Trichlorofluoromethane	8260B	ug/l	5	U	5	5	U	5	0%
Vinyl chloride	8260B	ug/l	2	U	2	2	U	2	0%
Ammonia-N	TM NH3-001	mg/L	0.3		0.05	0.05	U	0.05	143%
1,4-Dioxane	8260B SIM	ug/l	2			1.9			5%
Laboratory Sample ID			1701265.6			1701265-61			
Perfluorobutanesulfonic acid (PFBS)	537 Modified	ng/L	6.26	J+		5.26	J+		17%
Perfluoroheptanoic acid (PFHpA)	537 Modified	ng/L	336			334			1%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	ng/L	22.5	J		17.9	J		23%
Perfluorooctanoic acid (PFOA)	537 Modified	ng/L	648			683			5%
Perfluorononanoic acid (PFNA)	537 Modified	ng/L	249	J		316			24%
Perfluorooctanesulfonic (PFOS)	537 Modified	ng/L	1120			1100			2%
Combination of PFOA and PFOS			1768			1783			1%

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Table 7

Duplicate Comparisons

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Sample ID			S-SED-5			S-SED-5-DUP			
Sample Collection Date			9/19/2017			9/19/2017			
Laboratory Sample ID			173571.39			173571.4			**Relative Percent**
Parameter	**Method**	**Units**	**Result**	**Flag**	**RL**	**Result**	**Flag**	**RL**	**Difference (RPD)**
Solids Total	2540G-91	Percent	56.4			56.1			1%
Total Aluminum	6020	mg/kg	34000			33000			3%
Total Antimony	6020	mg/kg	0.5	U	0.5	0.5	U	0.5	0%
Total Arsenic	6020	mg/kg	11			13			17%
Total Barium	6020	mg/kg	210			220			5%
Total Beryllium	6020	mg/kg	2			2			0%
Total Cadmium	6020	mg/kg	0.5	U	0.5	0.5	U	0.5	0%
Total Calcium	6020	mg/kg	3200			3300			3%
Total Chromium	6020	mg/kg	63			61			3%
Total Cobalt	6020	mg/kg	11			11			0%
Total Copper	6020	mg/kg	33			35			6%
Total Iron	6020	mg/kg	29000			29000			0%
Total Lead	6020	mg/kg	22			25			13%
Total Magnesium	6020	mg/kg	9000			8900			1%
Total Manganese	6020	mg/kg	420			420			0%
Total Mercury	6020	mg/kg	0.1	U	0.1	0.1	U	0.1	0%
Total Nickel	6020	mg/kg	41			41			0%
Total Potassium	6020	mg/kg	9300			8700			7%
Total Selenium	6020	mg/kg	0.5	U		0.5			0%
Total Silver	6020	mg/kg	0.5	U	0.5	0.5	U	0.5	0%
Total Sodium	6020	mg/kg	600			500			18%
Total Thallium	6020	mg/kg	0.5		0.5	0.6		0.5	18%
Total Vanadium	6020	mg/kg	47			48			2%
Total Zinc	6020	mg/kg	110			110			0%
1,4-Dioxane	8260B SIM	mg/kg	0.2	U	0.2	0.1	U	0.1	67%
Laboratory Sample ID			1701265-79			1701265-80			
Perfluorobutanesulfonic acid (PFBS)	537 Modified	mg/kg	0.00186	U	0.0019	0.00217	U	0.00217	15%
Perfluoroheptanoic acid (PFHpA)	537 Modified	mg/kg	0.00166	U	0.0017	0.00194	U	0.00194	16%
Perfluorohexanesulfonic acid (PFHxS)	537 Modified	mg/kg	0.00197	U	0.002	0.0023	U	0.0023	15%
Perfluorooctanoic acid (PFOA)	537 Modified	mg/kg	0.00209	J		0.00208	J		0%
Perfluorononanoic acid (PFNA)	537 Modified	mg/kg	0.00258	J		0.00326	J		23%
Perfluorooctanesulfonic (PFOS)	537 Modified	mg/kg	0.022			0.0327			39%
Combination of PFOA and PFOS		mg/kg	0.02409			0.03478			36%

Notes on first page of table

TABLE 8

STATISTICAL AND VISUAL ANALYSIS RESULTS

TABLE 8
Statistical and Visual Trend Analysis Results
2017 Bi-Annual Report - Coakley Landfill, North Hampton, New Hampshire

	1,4-dioxane		Benzene		Tertiary-butyl Alcohol (TBA)		Arsenic		Manganese	
Well	**Statistical Trend**	**Visual Trend**	**Statistical Trend**	**Visual Trend**	**Statistical Trend**	**Visual Trend**	**Statistical Trend**	**Visual Trend**	**Statistical Trend**	**Visual Trend**
Operable Unit 1 Wells										
BP-4	No Trend	Decreasing	NA	NA	NA	NA	No Trend	Increasing	Decreasing	Increasing
MW-4	No Trend	Not Stable	NA	NA	NA	NA	Decreasing	Stable	Decreasing	Stable
MW-5D	No Trend	Not Stable	No Trend	Stable	No Trend	Stable	No Trend	Not Stable	No Trend	Increasing
MW-5S	Decreasing	Decreasing	No Trend	Stable	ND	ND	No Trend	Stable	Decreasing	Decreasing
MW-6	ND	ND	ND	ND	ND	ND	ND	ND	Increasing	Not Stable
MW-8	Decreasing	Decreasing	No Trend	Stable	Decreasing	Stable	No Trend	Decreasing	Decreasing	Decreasing
MW-9	No Trend	Not Stable	NA	NA	NA	NA	No Trend	Not Stable	No Trend	Not Stable
MW-10	NP*	NP*	NA	NA	NA	NA	No Trend	Not Stable	Decreasing	Decreasing
MW-11	Decreasing	Decreasing	Decreasing	Stable	ND	ND	No Trend	Stable	No Trend	Increasing
OP-2	NP	NP	NA	NA	NA	NA	No Trend	Not Stable	Increasing	Increasing
OP-5	ND	ND	NA	NA	NA	NA	No Trend	Decreasing	No Trend	Decreasing
Operable Unit 2 Wells										
AE-1A	ND	ND	NA	NA	NA	NA	Decreasing	Stable	Increasing	Stable
AE-1B	NP	NP	NA	NA	NA	NA	Increasing	Stable	No Trend	Increasing
AE-2A	Decreasing	Decreasing	ND	ND	ND	ND	Decreasing	Not Stable	Increasing	Increasing
AE-2B	No Trend	Decreasing	ND	ND	ND	ND	Decreasing	Decreasing	Decreasing	Decreasing
AE-3A	No Trend	Decreasing	Decreasing	Stable	ND	ND	No Trend	Decreasing	Increasing	Increasing
AE-3B	No Trend	Decreasing	Decreasing	Stable	ND	ND	No Trend	Not Stable	Increasing	Increasing
AE-4A	ND	ND	ND	ND	ND	ND	ND	ND	Decreasing	Decreasing
AE-4B	ND	ND	ND	ND	ND	ND	ND	ND	Decreasing	Not Stable
FPC-4B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FPC-5B	No Trend	Not Stable	NA	NA	NA	NA	NP	NP	NP	NP
FPC-6A	No Trend	Not Stable	ND	ND	ND	ND	NP	NP	No Trend	Not Stable
FPC-6B	No Trend	Not Stable	ND	ND	ND	ND	Decreasing	Stable	Decreasing	Stable
FPC-7A	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND
FPC-7B	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND
FPC-8A	No Trend	Stable	ND	ND	ND	ND	ND	ND	NP	NP
FPC-8B	Decreasing	Decreasing	ND	ND	ND	ND	NP	NP	NP	NP
FPC-9A	NA	NA	NA	NA	NA	NA	Increasing	Increasing	No Trend	Decreasing
FPC-11A	NP	NP	NA	NA	NA	NA	NP	NP	No Trend	Stable
FPC-11B	NP*	NP*	NA	NA	NA	NA	NP	NP	Decreasing	Decreasing
GZ-105	No Trend	Not Stable	No Trend	Not Stable	ND	ND	No Trend	Not Stable	Decreasing	Increasing
Trend Tests Completed	16		11		2		23		24	
Trends Identified	0		7		1		9		13	
Increasing Trends	0		1		0		7		6	
Decreasing Trends	0		6		1		2		7	
No Trend	16		4		1		14		11	

NOTES:

NA	Parameter Not Analyzed
ND	Parameter Not Detected
NP	Not Performed, trend analysis not performed because parameter has not recently exceeded USEPA CL or NHDES AGQS.
NP*	Not Performed, data from at least 5 sampling events are required for Mann Kendall statistical analysis or visual trend analysis.
1.	Wells with screened interval longer than 10 feet were interval sampled in August 2013 (MW-5D, MW-5S, MW-8, MW-11, AE-3B, FPC-4B, FPC-5B, FPC-6B, FPC-7B, FPC-8B, GZ-105), or September/October 2014 (FPC-11B). Samples collected using the interval sampling method are not considered to be directly comparable to data from low flow purging sampling methods; therefore, the interval sampling data was excluded from the trends analyses - although it is noted that average concentrations for the interval data were used when plotting time series plots.
2.	Mann Kendall trend analysis completed using 95% confidence interval. Possible outcomes include: No Trend, Increasing, or Decreasing.
3.	Visual trend analysis focused on data from last 5 years, in the context of complete data set. Possible outcomes include: Stable, Not Stable, Increasing, or Decreasing.
4.	FPC-5A: Not sampled in 2016; therefore no trend analysis was completed.

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TABLE 9

CONTAMINANTS OF CONCERN ANALYTICAL DATA
(NOVEMBER 2000 – SEPTEMBER 2017)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Antimony in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 0.005	< 0.001	NA	< 0.002	< 0.002	< 0.004	< 0.04	< 0.002	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	<0.001	<0.001	<0.001
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	< 0.02	< 0.005	NA	< 0.004	< 0.004	< 0.004	< 0.012	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-5D	< 0.001	< 0.01	NA	< 0.002	< 0.002	< 0.004	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-5S	< 0.02	< 0.001	NA	< 0.002	< 0.004	< 0.004	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-6	< 0.02	< 0.005	NA	< 0.005	< 0.002	< 0.005	< 0.012	< 0.002	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-8	< 0.02	< 0.005	NA	< 0.002	< 0.004	< 0.004	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-9	< 0.02	< 0.005	NA	0.002	<0.004	**0.007**	< 0.006	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-10	< 0.02	< 0.005	NA	< 0.002	< 0.002	< 0.004	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
MW-11	< 0.02	< 0.005	NA	< 0.002	< 0.002	< 0.004	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
OP-2	< 0.02	< 0.001	NA	< 0.002	< 0.002	< 0.005	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
OP-5	< 0.005	< 0.001	NA	< 0.002	< 0.002	< 0.004	< 0.016	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Operable Unit 2 Wells																									
AE-1A	< 0.005	< 0.001	NA	< 0.002	0.002	< 0.004	**0.012**	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AE-1B	< 0.02	< 0.005	NA	< 0.002	< 0.002	< 0.004	< 0.006	< 0.002	NS	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AE-2A	< 0.005	< 0.001	NA	< 0.002	< 0.002	< 0.005	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AE-2B	< 0.025	< 0.005	NA	< 0.002	< 0.002	< 0.004	< 0.04	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AE-3A	< 0.025	< 0.005	NA	< 0.002	< 0.002	< 0.004	< 0.04	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AE-3B	< 0.025	< 0.01	NA	< 0.002	< 0.002	< 0.004	< 0.016	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AE-4A	NS	NS	NS	NS	0.005	< 0.005	< 0.008	**0.008**	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
AE-4B	NS	NS	NS	NS	< 0.008	< 0.005	< 0.008	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-2A	NA	< 0.001	NA	NA	< 0.002	< 0.004	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 0.002	**0.007**	< 0.006	< 0.002	< 0.001	NS	< 0.001	0.002	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	< 0.001
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	< 0.001
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	< 0.001
FPC-4B	NS	NS	NS	NS	< 0.004	< 0.004	< 0.004	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-5A	< 0.025	< 0.001	NA	< 0.002	< 0.002	< 0.004	< 0.004	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	NS	NS	NS	NS	NS
FPC-5B	0.006	< 0.005	NA	< 0.002	< 0.004	< 0.004	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-6A	< 0.005	< 0.001	NS	NS	< 0.008	< 0.004	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-6B	< 0.025	< 0.001	NA	< 0.002	< 0.004	< 0.004	< 0.02	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-7A	NS	NS	NS	NS	< 0.004	NA	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-7B	NS	NS	NS	NS	< 0.004	NA	< 0.006	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-8A	< 0.025	0.005	NA	0.002	< 0.004	< 0.004	< 0.008	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-8B	< 0.005	< 0.001	NA	< 0.004	< 0.002	< 0.004	< 0.008	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-9A	< 0.001	< 0.005	NA	< 0.002	< 0.002	< 0.004	< 0.006	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-9B	< 0.02	NS	NS	< 0.005	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 0.002	< 0.004	< 0.016	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
FPC-11B	NS	NS	NS	NS	0.003	< 0.004	< 0.016	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	INT	<0.001	<0.001	<0.001	<0.001
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	< 0.001	< 0.005	NA	< 0.002	< 0.004	< 0.004	< 0.04	0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	<0.001	<0.001	<0.001
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS
R-5	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NS	NA	NA	NA	NS	NS
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS	NS
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NA	NA	NS	NS

Table Notes:

1. All data in milligrams per liter (mg/L), parts per million - Analyzed by Method 200.8
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Antimony is 0.006 mg/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Antimony is 0.006 mg/L. Exceedances are identified with BOLD text.
4. All data for Total metals, with the exception of the following overburden wells for Sept. 2014 (MW-4, MW-9, MW-10, OP-2, OP-5, AE-1A, AE-2A, AE-3A, AE-4A, FPC-6A, FPC-7A, FPC-8A, FPC-9A and FPC-11A)
5. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Arsenic in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	**0.035**	**0.02**	**0.031**	**0.036**	**0.032**	**0.022**	**0.011**	**0.026**	**0.03**	NS	**0.023**	**0.022**	NS	**0.034**	**0.033**	**0.034**	NS	NS	**0.032**	NS	**0.025**	**0.017**	<0.001	**0.039**	**0.041**
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	**0.06**	**0.042**	**0.064**	**0.041**	**0.04**	**0.066**	**0.13**	**0.043**	**0.058**	NS	**0.069**	**0.07**	**0.064**	NS	**0.081**	**0.08**	NS	NS	**0.053**	NS	**0.063**	**0.05**	**0.045**	**0.046**	**0.051**
MW-5D	0.009	0.007	0.008	0.006	0.007	0.005	0.006	0.005	**0.011**	NS	0.005	0.006	0.01	NS	0.01	**0.011**	NS	NS	INT	NS	0.009	0.01	0.01	0.009	**0.011**
MW-5S	**0.018**	**0.021**	**0.023**	**0.026**	0.01	**0.015**	**0.014**	0.01	**0.026**	NS	**0.026**	**0.018**	**0.016**	NS	**0.018**	**0.017**	NS	NS	INT	NS	**0.022**	**0.017**	**0.02**	**0.02**	**0.021**
MW-6	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001 J	< 0.002	< 0.004	< 0.002	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	NS	0.002	NS	< 0.001	< 0.001	< 0.001	<0.001	<0.001
MW-8	0.01	**0.011**	**0.043**	0.009	0.008	0.006	0.01	0.007	0.01	NS	0.008	0.008	**0.013**	NS	**0.016**	**0.018**	NS	NS	INT	NS	0.009	**0.011**	0.007	0.007	0.008
MW-9	**0.069**	**0.063**	**0.15**	**0.14**	**0.12**	**0.06**	**0.28**	**0.081**	**0.056**	NS	**0.057**	**0.078**	**0.12**	NS	**0.13**	**0.14**	NS	NS	**0.046**	NS	**0.12**	**0.14**	**0.027**	<0.001	**0.067**
MW-10	0.01	0.003	**0.032**	**0.028**	0.011 J	**0.033**	**0.024**	**0.011**	**0.012**	NS	0.009	**0.017**	**0.019**	NS	**0.012**	**0.019**	NS	NS	**0.015**	NS	**0.022**	**0.014**	0.01	<0.001	**0.044**
MW-11	0.01	**0.014**	**0.02**	**0.017**	**0.015**	**0.011**	**0.012**	0.01	**0.015**	NS	**0.013**	**0.011**	**0.011**	NS	0.008	0.009	NS	NS	INT	NS	**0.013**	**0.014**	**0.013**	**0.013**	**0.013**
OP-2	**0.2**	**0.17**	**0.29**	**0.26**	**0.27**	**0.19**	**0.025**	**0.2**	**0.19**	NS	**0.17**	**0.2**	**0.22**	NS	**0.21**	**0.22**	NS	NS	**0.2**	NS	**0.23**	**0.22**	**0.18**	**0.15**	**0.26**
OP-5	**0.05**	**0.027**	**0.043**	**0.048**	**0.046**	**0.033**	**0.025**	**0.027**	**0.033**	NS	**0.017**	**0.013**	**0.019**	NS	**0.027**	**0.03**	NS	NS	**0.03**	NS	**0.048**	**0.044**	**0.056**	**0.023**	**0.022**
Operable Unit 2 Wells																									
AE-1A	**0.017**	**0.018**	**0.017**	**0.018**	**0.02**	**0.022**	**0.02**	**0.015**	**0.039**	NS	**0.041**	**0.029**	**0.02**	NS	**0.022**	**0.018**	NS	NS	**0.018**	NS	**0.014**	**0.016**	**0.015**	**0.017**	**0.016**
AE-1B	0.004	0.005	0.005	0.005	0.004 J	0.004	0.003	< 0.002	NS	NS	0.003	0.004	0.006	NS	0.006	0.007	NS	NS	0.008	NS	0.008	0.008	0.007	0.008	0.007
AE-2A	**0.29**	**0.3**	**0.34**	**0.29**	**0.33**	**0.29**	**0.3**	**0.24**	**0.28**	NS	**0.23**	**0.24**	**0.24**	NS	**0.25**	**0.24**	NS	NS	**0.19**	NS	**0.012**	**0.19**	**0.13**	**0.13**	**0.17**
AE-2B	**0.026**	**0.013**	**0.016**	**0.011**	**0.018**	**0.016**	**0.025**	**0.024**	**0.02**	NS	**0.019**	**0.026**	**0.016**	NS	**0.028**	**0.02**	NS	NS	**0.02**	NS	**0.014**	**0.012**	0.006	0.004	**0.011**
AE-3A	**0.1**	**0.09**	**0.13**	**0.11**	**0.11**	**0.11**	**0.12**	**0.1**	**0.13**	NS	**0.15**	**0.12**	**0.12**	NS	**0.11**	**0.11**	NS	NS	**0.14**	NS	**0.13**	**0.13**	**0.11**	**0.093**	**0.09**
AE-3B	**0.093**	**0.083**	**0.11**	**0.073**	0.084 J	**0.092**	**0.078**	**0.091**	**0.082**	NS	**0.095**	**0.091**	**0.079**	NS	**0.083**	**0.088**	NS	NS	INT	NS	**0.087**	**0.061**	**0.091**	**0.076**	**0.095**
AE-4A	NS	NS	NS	NS	< 0.002 JM	< 0.002	< 0.002	< 0.002	0.003	NS	0.01	0.003	0.002	NS	0.001	0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	<0.001	<0.001
AE-4B	NS	NS	NS	NS	0.003	< 0.002	< 0.002	< 0.002	0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	<0.001	<0.001
FPC-2A	< 0.005	0.001	< 0.001	NA	0.001	< 0.002	0.005	< 0.002	0.008	NS	0.003	0.002	0.002	NS	0.002	0.002	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	0.004	< 0.002	0.004	< 0.002	0.002	NS	0.003	0.003	0.003	NS	0.003	0.002	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.012**	0.008	0.007
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.003	0.003	0.002
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	**0.013**	**0.013**	**0.013**
FPC-4B	NS	NS	NS	NS	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	<0.001	<0.001
FPC-5A	< 0.001	0.001	**0.046**	**0.054**	0.008	**0.045**	**0.065**	**0.042**	**0.053**	NS	**0.054**	**0.053**	**0.055**	NS	**0.051**	**0.053**	NS	NS	**0.052**	NS	NS	NS	NS	NS	NS
FPC-5B	**0.031**	**0.034**	0.002	0.001	0.038 J	< 0.002	0.004	< 0.002	0.004	NS	0.001	0.001	0.003	NS	0.002	0.002	NS	NS	0.002	NS	0.002	0.002	0.003	0.003	0.003
FPC-6A	< 0.005	< 0.001	NS	NS	0.009	< 0.002	0.003	< 0.002	0.003	NS	0.002	**0.013**	**0.03**	NS	0.009	**0.037**	NS	NS	**0.018**	NS	**0.038**	**0.032**	**0.011**	0.005	0.004
FPC-6B	0.003	0.006	0.006	0.003	< 0.002 J	**0.013**	**0.05**	0.005	0.009	NS	**0.014**	0.002	0.003	NS	0.005	0.004	NS	NS	INT	NS	0.003	0.003	0.002	0.001	0.002
FPC-7A	NS	NS	NS	NS	< 0.001 J	< 0.004	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	<0.001	<0.001
FPC-7B	NS	NS	NS	NS	< 0.001 J	0.007	0.002	< 0.002	< 0.001	NS	0.002	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	<0.001	<0.001
FPC-8A	0.003	0.004	0.007	0.008	0.004	< 0.002	0.008	<0.002	0.004	NS	0.002	0.006	0.007	NS	0.008	0.006	NS	NS	0.002	NS	0.001	0.001	<0.001	<0.001	<0.001
FPC-8B	0.007	0.008	0.008	0.008	0.009	0.004	0.005	0.005	0.007	NS	0.007	0.007	0.007	NS	0.008	0.007	NS	NS	INT	NS	0.008	0.007	0.006	0.007	0.007
FPC-9A	**0.07**	**0.53**	**0.065**	**0.079**	**0.064**	< 0.002	< 0.002	**0.044**	**0.037**	NS	**0.026**	**0.034**	**0.036**	NS	**0.042**	**0.041**	NS	NS	**0.045**	NS	**0.058**	**0.048**	**0.044**	**0.047**	**0.048**
FPC-9B	< 0.002	NS	NS	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.001
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	0.002 J	< 0.002	< 0.004	< 0.002	0.001	NS	0.001	< 0.001	0.009	NS	0.008	0.007	NS	NS	NS	NS	0.004	0.003	0.002	**0.019**	0.007
FPC-11B	NS	NS	NS	NS	0.03 J	0.008	**0.011**	0.006	0.009	NS	0.008	0.01	0.01	NS	0.004	0.003	NS	NS	NS	NS	INT	0.004	0.003	0.002	0.002
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	**0.018**	0.008	**0.012**	**0.013**	0.009	0.01	0.009	0.006	**0.011**	NS	0.01	**0.013**	**0.015**	NS	**0.016**	**0.015**	NS	NS	INT	NS	**0.012**	0.008	0.008	**0.014**	**0.012**
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NA	NA	NA	NS	NA	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	<0.001
R-5	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS	NS	NA	NS	NS	NS	NA	NA	NA	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NS	< 0.001	< 0.001	< 0.001	<0.001	<0.001
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	< 0.001	< 0.001	0.002	NA	<0.001	<0.001
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	< 0.001	< 0.001	< 0.001	<0.001	<0.001

Table Notes:

1. All data in milligrams per liter (mg/L), parts per million - Analyzed by Method 200.8
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Arsenic is 0.01 mg/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Arsenic is 0.01 mg/L. Exceedances are identified with BOLD text.
4. All data for Total metals, with the exception of the following overburden wells for Sept. 2014 (MW-4, MW-9, MW-10, OP-2, OP-5, AE-1A, AE-2A, AE-3A, AE-4A, FPC-6A, FPC-7A, FPC-8A, FPC-9A and FPC-11A)
5. Residential results for January 2107 are reported for the May 2107 data.
6. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Beryllium in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 0.005	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	< 0.001	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.002	< 0.002	0.003	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-5D	< 0.01	0.002	NA	< 0.02	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-5S	< 0.01	< 0.02	NA	< 0.02	< 0.02	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-6	< 0.005	< 0.002	NA	< 0.004	< 0.004 J	< 0.002	**0.006**	< 0.002	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-8	< 0.005	< 0.002	NA	< 0.02	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-9	< 0.001	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.002 M	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-10	< 0.005	< 0.002	NA	< 0.004	< 0.004 J	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-11	< 0.005	< 0.002	NA	< 0.02	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
OP-2	< 0.001	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
OP-5	< 0.005	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.004	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Operable Unit 2 Wells																									
AE-1A	< 0.005	< 0.002	NA	< 0.004	< 0.004 J	< 0.002	**0.006**	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-1B	< 0.005	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.002	< 0.002	NS	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-2A	< 0.005	< 0.002	NA	< 0.008	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-2B	< 0.01	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-3A	< 0.001	< 0.004	NA	< 0.004	< 0.004 J	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-3B	< 0.001	< 0.004	NA	< 0.004	< 0.004 J	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-4A	NS	NS	NS	NS	< 0.008 M	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-4B	NS	NS	NS	NS	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-2A	NA	< 0.002	NA	NA	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	<0.001
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	<0.001
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	<0.001
FPC-4B	NS	NS	NS	NS	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-5A	< 0.001	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	NS	NS	NS	NS	NS
FPC-5B	< 0.001	< 0.002	NA	< 0.004	< 0.004 J	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-6A	< 0.005	< 0.002	NS	NS	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-6B	< 0.001	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.1	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-7A	NS	NS	NS	NS	< 0.004 J	NA	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-7B	NS	NS	NS	NS	< 0.004 J	NA	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-8A	< 0.001	< 0.002	NA	< 0.004	< 0.004 J	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-8B	< 0.005	< 0.002	NA	< 0.008	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-9A	< 0.005	< 0.002	NA	< 0.004	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-9B	< 0.005	NS	NS	< 0.004	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 0.004 J	< 0.002	**0.006**	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-11B	NS	NS	NS	NS	< 0.004 J	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	INT	<0.001	<0.001	<0.001	<0.001
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	< 0.005	< 0.002	NA	< 0.008	< 0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS
R-5	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NS	NA	NA	NA	NS	NS
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS	NS
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NA	NA	NS	NS

Table Notes:

1. All data in milligrams per liter (mg/L), parts per million - Analyzed by Method 200.8
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Beryllium is 0.004 mg/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Beryllium is 0.004 mg/L. Exceedances are identified with BOLD text.
4. All data for Total metals, with the exception of the following overburden wells for Sept. 2014 (MW-4, MW-9, MW-10, OP-2, OP-5, AE-1A, AE-2A, AE-3A, AE-4A, FPC-6A, FPC-7A, FPC-8A, FPC-9A and FPC-11A)
5. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Chromium in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 0.005	0.002	NA	0.001	0.002	< 0.002	0.015	< 0.002	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	0.042	< 0.002	NA	0.006	0.032	< 0.002	**0.6**	**0.15**	**0.14**	NS	**0.19**	0.002	< 0.001	NS	0.001	< 0.001	NS	NS	0.003	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-5D	< 0.005	< 0.02	NA	0.001	0.002	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-5S	< 0.015	0.002	NA	0.002	0.004	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-6	< 0.015	< 0.02	NA	< 0.002	< 0.002	< 0.002	< 0.004	< 0.002	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-8	< 0.015	< 0.02	NA	0.001	0.004	< 0.002	0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	0.002	<0.001
MW-9	< 0.015	< 0.02	NA	0.014	0.007	0.005	0.003	< 0.004	< 0.001	NS	< 0.001	< 0.001	0.001	NS	< 0.001	0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-10	< 0.015	< 0.02	NA	0.001	0.005	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	0.002	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-11	< 0.015	< 0.02	NA	0.002	0.002	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
OP-2	< 0.015	0.003	NA	0.002	0.003	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
OP-5	< 0.005	< 0.001	NA	< 0.001	< 0.001	< 0.002	0.007	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Operable Unit 2 Wells																									
AE-1A	< 0.005	0.001	NA	< 0.001	0.016	< 0.002	0.005	< 0.002	0.005	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	0.008	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-1B	< 0.015	< 0.02	NA	0.003	0.002	< 0.002	< 0.002	< 0.002	NS	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-2A	< 0.005	0.002	NA	< 0.002	0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-2B	**0.13**	0.03	NA	0.013	0.003	0.002	< 0.01	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-3A	< 0.02	< 0.02	NA	0.017	0.006	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	0.003	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-3B	< 0.02	< 0.02	NA	0.005	0.009	< 0.002	< 0.004	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-4A	NS	NS	NS	NS	0.0042	< 0.002	0.005	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-4B	NS	NS	NS	NS	**0.34**	< 0.002	0.004	< 0.004	0.003	NS	0.002	< 0.001	0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-2A	NA	< 0.001	NA	NA	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 0.001	0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.003	< 0.001	<0.001
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	<0.001
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	<0.001
FPC-4B	NS	NS	NS	NS	0.003	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-5A	< 0.02	0.001	NA	0.002	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	NS	NS	NS	NS	NS
FPC-5B	< 0.02	< 0.02	NA	< 0.001	0.005	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-6A	< 0.005	0.001	NS	NS	0.013	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-6B	< 0.02	0.001	NA	< 0.001	0.001	0.008	0.008	< 0.004	0.003	NS	0.002	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-7A	NS	NS	NS	NS	0.003	< 0.004	< 0.002	< 0.002	0.002	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-7B	NS	NS	NS	NS	0.002	**0.067**	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-8A	0.013	< 0.02	NA	0.023	0.008	< 0.002	0.01	<0.004	< 0.001	NS	< 0.001	0.006	0.006	NS	0.003	0.003	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-8B	< 0.005	< 0.001	NA	< 0.002	< 0.001	< 0.002	0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-9A	< 0.005	< 0.02	NA	< 0.001	0.001	< 0.002	< 0.002	< 0.002	0.002	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-9B	< 0.015	NS	NS	0.002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	0.006	< 0.002	0.024	< 0.004	0.002	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-11B	NS	NS	NS	NS	0.046	< 0.002	**0.14**	0.016	< 0.001	NS	0.002	< 0.001	< 0.001	NS	0.016	< 0.001	NS	NS	NS	NS	INT	<0.001	<0.001	<0.001	<0.001
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	< 0.005	< 0.02	NA	0.002	0.004	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS
R-5	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NS	NA	NA	NA	NS	NS
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS	NS
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NA	NA	NS	NS

Table Notes:

1. All data in milligrams per liter (mg/L), parts per million - Analyzed by Method 200.8
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Chromium is 0.1 mg/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Chromium is 0.05 mg/L. Exceedances are identified with BOLD text.
4. All data for Total metals, with the exception of the following overburden wells for Sept. 2014 (MW-4, MW-9, MW-10, OP-2, OP-5, AE-1A, AE-2A, AE-3A, AE-4A, FPC-6A, FPC-7A, FPC-8A, FPC-9A and FPC-11A)
5. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Lead in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 0.005	< 0.001	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	NS	0.004	0.01	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	0.002	< 0.005	NA	< 0.001	< 0.002	< 0.002	**0.1**	**0.023**	**0.037**	NS	**0.043**	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	0.002	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-5D	< 0.005	< 0.002	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-5S	< 0.002	< 0.001	NA	< 0.01	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-6	< 0.002	< 0.005	NA	< 0.002	< 0.001	< 0.002	< 0.004	< 0.002	< 0.001	NS	< 0.001	< 0.001	NS	0.003	0.001	0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-8	< 0.002	< 0.01	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-9	< 0.002	< 0.01	NA	0.002	< 0.001	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-10	< 0.002	< 0.01	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
MW-11	< 0.002	< 0.01	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
OP-2	< 0.002	< 0.001	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	0.006	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
OP-5	< 0.005	< 0.001	NA	< 0.001	< 0.001	< 0.002	0.003	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
Operable Unit 2 Wells																									
AE-1A	< 0.005	< 0.001	NA	< 0.001	0.001	< 0.002	< 0.004	< 0.002	0.015	NS	0.003	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	0.004	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-1B	< 0.002	< 0.005	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	NS	NS	< 0.001	< 0.001	< 0.001	NS	0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	0.002	< 0.001	< 0.001	<0.001
AE-2A	< 0.005	< 0.001	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-2B	**0.017**	< 0.005	NA	< 0.02	< 0.001	< 0.002	< 0.01	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-3A	< 0.001	< 0.002	NA	0.007	< 0.001	< 0.002	< 0.002	< 0.004	< 0.001	NS	0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-3B	< 0.001	< 0.002	NA	< 0.001	< 0.001	< 0.002	< 0.004	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-4A	NS	NS	NS	NS	0.007	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-4B	NS	NS	NS	NS	**0.05**	< 0.002	< 0.002	< 0.004	0.002	NS	0.002	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-2A	NA	< 0.001	NA	NA	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	0.003	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	<0.001
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	<0.001
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	< 0.001	<0.001
FPC-4B	NS	NS	NS	NS	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-5A	< 0.001	< 0.001	NA	< 0.005	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-5B	< 0.001	< 0.01	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-6A	< 0.005	< 0.001	NA	NS	< 0.002	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-6B	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.002	< 0.01 J	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-7A	NS	NS	NS	NS	< 0.001	< 0.004	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-7B	NS	NS	NS	NS	< 0.001	**0.018**	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-8A	0.001	< 0.01	NA	0.003	< 0.001	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	0.001	0.002	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-8B	< 0.005	< 0.001	NA	< 0.002	< 0.001	< 0.002	< 0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	0.004	<0.001
FPC-9A	< 0.005	< 0.005	NA	< 0.001	< 0.001	< 0.002	< 0.002	< 0.002	0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-9B	< 0.002	NS	NS	< 0.002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 0.001	< 0.002	< 0.004	< 0.004	0.002	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-11B	NS	NS	NS	NS	0.007	< 0.002	< 0.004	0.006	0.001	NS	< 0.001	< 0.001	< 0.001	NS	0.006	< 0.001	NS	NS	NS	NS	INT	<0.001	<0.001	<0.001	<0.001
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	< 0.005	< 0.01	NA	< 0.002	< 0.001	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	NS	0.002	0.004	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS
R-5	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NS	NA	NA	NA	NS	NS
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS	NS
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NA	NA	NS	NS

Table Notes:

1. All data in milligrams per liter (mg/L), parts per million - Analyzed by Method 200.8
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Lead is 0.015 mg/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Lead is 0.015 mg/L. Exceedances are identified with BOLD text.
4. All data for Total metals, with the exception of the following overburden wells for Sept. 2014 (MW-4, MW-9, MW-10, OP-2, OP-5, AE-1A, AE-2A, AE-3A, AE-4A, FPC-6A, FPC-7A, FPC-8A, FPC-9A and FPC-11A)
5. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Manganese in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	**1.4**	**1.7**	**1.5**	**1.3**	**1.4**	**1.3**	**1.7**	**1.3**	**1.2**	NS	**1.1**	0.094	NS	**1.2**	**1.1**	**1.2**	NS	NS	**0.96**	NS	**0.69**	**0.49**	**0.36**	**1.2**	**1.4**
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	**1.5**	**1.6**	**1.4**	**1.3**	**1.7**	**1.4**	**13**	**4.5**	**5.9**	NS	**5.8**	**1.2**	**1.1**	NS	**1.3**	**1.2**	NS	NS	**0.97**	NS	**1.2**	**0.9**	**1**	**1.2**	**1.2**
MW-5D	**0.92**	**1.2**	**0.92**	**0.86**	**0.88**	**0.87**	**0.89**	**0.89**	**0.86**	NS	**0.78**	**0.77**	**0.73**	NS	**0.78**	**0.96**	NS	NS	INT	NS	**0.79**	**0.7**	**0.74**	**0.8**	**0.92**
MW-5S	**3.4**	**3.1**	**3.2**	**3.5**	**4.1**	**3.8**	**3.6**	**3.7**	**4.4**	NS	**3.9**	**3.4**	**2.9**	NS	**2.9**	**3.6**	NS	NS	INT	NS	**3.3**	**2.4**	**3**	**2.9**	**3.1**
MW-6	0.08	**0.6**	**1.2**	**1.2**	**1.1**	**0.7**	**0.97**	**0.54**	**0.74**	NS	**0.52**	**0.49**	NS	**1.9**	**1.8**	**2.5**	NS	NS	**0.99**	NS	**2.7**	**2.2**	**1.6**	**0.84**	**2**
MW-8	**3.6**	**3.2**	**9.8**	**2.8**	**2.9**	**2.4**	**2.5**	**2.5**	**1.6**	NS	**1.9**	**2**	**2.1**	NS	**1.7**	**2.2**	NS	NS	INT	NS	**1.3**	**1.1**	**1.2**	**1.3**	**1.3**
MW-9	**1.1**	**0.88**	**1**	**1.1**	**1.3**	**1.1**	**0.71**	**2.4**	**1.2**	NS	**3.5**	**2.1**	**1.4**	NS	**0.88**	**1.4**	NS	NS	**1.3**	NS	**1.4**	**1.2**	**0.89**	0.083	**2.4**
MW-10	**1.9**	**0.91**	**3.9**	**4.4**	**8.1**	**3.9**	**3.5**	**3.2**	**2.8**	NS	**0.76**	**2.2**	**2.7**	NS	**1.6**	**3**	NS	NS	**1.7**	NS	**2.3**	**1.9**	**1.5**	0.14	**4.2**
MW-11	**0.95**	**0.78**	**0.71**	**0.6**	**0.6**	**0.59**	**0.53**	**0.45**	**0.41**	NS	**0.44**	**0.39**	**0.34**	NS	**0.35**	**0.41**	NS	NS	INT	NS	**0.43**	**0.45**	**0.47**	**0.49**	**0.51**
OP-2	**0.45**	**0.5**	0.29	**0.33**	**0.36**	**0.38**	**0.39**	**0.47**	**0.62**	NS	**0.58**	**0.63**	**0.76**	NS	**1**	**1**	NS	NS	**0.98**	NS	**1.2**	**1**	**1.6**	**2**	**1.5**
OP-5	**6.7**	**4.9**	**5.6**	**5.2**	**3.9**	**3.5**	**3.8**	**2.5**	**3.8**	NS	**2.3**	**1.8**	**2.2**	NS	**2.7**	**3.7**	NS	NS	**3.1**	NS	**4.3**	**3**	**4.7**	**2.6**	**2.1**
Operable Unit 2 Wells																									
AE-1A	0.16	0.21	**0.31**	**0.35**	**0.38**	0.28	0.25	**0.44**	0.13	NS	0.014	0.25	**0.38**	NS	**0.39**	**0.5**	NS	NS	**0.47**	NS	**0.46**	**0.44**	**0.51**	**0.48**	**0.48**
AE-1B	**0.64**	**0.62**	**0.61**	**0.61**	**0.66**	**0.65**	**0.72**	**0.64**	NS	NS	0.3	**0.73**	**0.53**	NS	**0.56**	**0.59**	NS	NS	**0.49**	NS	**0.53**	**0.45**	**0.51**	**0.57**	**0.55**
AE-2A	**0.65**	**0.83**	**0.74**	**0.95**	**0.83**	**0.76**	**0.72**	**0.51**	**0.77**	NS	**0.61**	**0.65**	**0.7**	NS	**0.74**	**0.82**	NS	NS	**0.81**	NS	**0.81**	**0.77**	**0.83**	**1.1**	**0.72**
AE-2B	**6.4**	**5.1**	**4.4**	**4.4**	**3.7**	**3**	**3.1**	**2.4**	**2.1**	NS	**1.7**	**1.7**	**1.3**	NS	**1.2**	**1.5**	NS	NS	**1.2**	NS	**1.1**	**0.86**	**1.1**	**1.1**	**1.1**
AE-3A	**1.2**	**0.89**	**0.9**	**0.95**	**1.3**	**0.74**	**0.69**	**0.69**	**0.84**	NS	**0.85**	**1.3**	**0.76**	NS	**0.9**	**1.2**	NS	NS	**0.84**	NS	**1**	**0.94**	**1.1**	**1.2**	**1.3**
AE-3B	**2.1**	**2**	**1.4**	**1.4**	**1.5**	**1.1**	**1.1**	**1**	**0.57**	NS	**0.48**	**1.4**	**0.95**	NS	**1.4**	**1.5**	NS	NS	INT	NS	**1.1**	**0.74**	**1.4**	**1.8**	**2**
AE-4A	NS	NS	NS	NS	**0.93**	**0.35**	**0.38**	**0.31**	0.29	NS	**0.4**	**0.32**	0.29	NS	**0.47**	**0.42**	NS	NS	**0.38**	NS	0.21	0.13	0.055	0.035	0.044
AE-4B	NS	NS	NS	NS	**2.2**	**0.46**	**0.7**	0.22	**1.1**	NS	**0.6**	0.26	0.19	NS	0.22	0.013	NS	NS	0.008	NS	0.018	<0.005	<0.005	<0.005	**0.33**
FPC-2A	**0.74**	**0.92**	**0.68**	**0.67**	**0.6**	**0.59**	**0.57**	**0.67**	**0.8**	NS	**0.62**	**0.73**	**0.5**	NS	**0.55**	**0.63**	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	0.035	0.027	0.012	0.018	< 0.001	NS	0.023	0.084	0.021	NS	0.019	0.015	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.027	0.01	0.009
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.014	0.013	0.019
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.12	0.13	0.13
FPC-4B	NS	NS	NS	NS	0.046	0.003	0.079	< 0.003	0.031	NS	0.066	< 0.005	< 0.005	NS	< 0.005	< 0.005	NS	NS	INT	NS	0.006	<0.005	<0.005	<0.005	<0.005
FPC-5A	0.05	0.055	0.17	0.16	0.074	0.18	0.15	0.14	0.11	NS	0.11	0.11	0.1	NS	0.11	0.14	NS	NS	0.11	NS	NS	NS	NS	NS	NS
FPC-5B	0.2	0.19	0.055	0.07	0.17	0.073	0.076	0.088	0.095	NS	0.074	0.087	0.07	NS	0.056	0.059	NS	NS	INT	NS	0.057	0.047	0.057	0.059	0.053
FPC-6A	0.2	0.15	NS	NS	**7.2**	**0.53**	**0.61**	**0.41**	**0.5**	NS	**0.36**	**2.4**	**3.6**	NS	**2.1**	**3.9**	NS	NS	**2.3**	NS	**3.1**	**3.1**	**1.9**	**1.1**	**2.2**
FPC-6B	**0.69**	**0.62**	**0.83**	**0.75**	**0.6**	**5.9**	**6.2**	**2.1**	**3.1**	NS	**3**	**0.34**	**0.4**	NS	**0.38**	**0.47**	NS	NS	INT	NS	**0.39**	**0.44**	**0.37**	**0.45**	**0.45**
FPC-7A	NS	NS	NS	NS	0.014	NA	0.006	< 0.003	0.11	NS	0.034	< 0.005	< 0.005	NS	< 0.005	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-7B	NS	NS	NS	NS	**0.34**	NA	**0.37**	0.2	0.076	NS	**1.8**	0.11	0.014	NS	0.015	0.009	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-8A	**0.46**	**0.35**	**0.44**	**0.41**	0.3	**0.31**	0.26	0.15	0.15	NS	0.062	0.19	0.21	NS	0.26	0.27	NS	NS	0.21	NS	0.17	0.15	0.007	<0.005	0.21
FPC-8B	0.023	0.033	0.025	0.033	0.035	0.022	0.03	0.021	0.029	NS	0.028	0.025	0.032	NS	0.032	0.029	NS	NS	INT	NS	0.03	0.024	0.027	0.016	0.029
FPC-9A	**0.32**	**0.35**	0.3	**0.34**	**0.42**	0.04	0.03	0.27	**0.41**	NS	**0.52**	0.27	0.22	NS	0.26	**0.31**	NS	NS	0.24	NS	0.18	0.23	0.21	0.21	0.2
FPC-9B	0.08	NS	NS	0.053	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.091
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	**1**	**0.31**	**0.5**	0.022	**0.5**	NS	0.036	0.01	**0.4**	NS	**0.35**	**0.44**	NS	NS	NS	NS	**0.43**	**0.41**	**0.43**	**0.37**	**0.43**
FPC-11B	NS	NS	NS	NS	**3**	**2.2**	**2.5**	**0.88**	**1.3**	NS	**1.4**	**0.71**	**0.52**	NS	0.21	**0.58**	NS	NS	NS	NS	INT	**1.9**	**1.1**	0.27	**0.55**
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	**0.67**	**0.67**	**0.64**	**0.7**	**0.68**	**0.57**	**0.63**	**0.48**	**0.39**	NS	**0.4**	**0.5**	**0.46**	NS	**0.47**	**0.52**	NS	NS	INT	NS	**0.34**	0.23	0.29	**0.42**	**0.43**
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.022
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.005
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	**3.3**	NS	**2.3**	**3**	**2.2**	NS	**2.4**	**1.7**	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	0.16	NS	0.062	0.081	NS	0.29	0.23	**0.31**	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NA	NA	NA	NS	NA	0.14	0.1	0.16	0.19	0.19	0.15
R-5	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NS	0.29	**0.37**	0.28	0.29	**0.45**
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	0.25	**0.32**	**0.31**	**0.31**	**0.42**	**0.34**
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	0.028	0.03	0.046	0.055	0.056

Table Notes:

1. All data in milligrams per liter (mg/L), parts per million - Analyzed by Method 200.8
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Manganese is 0.84 mg/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Manganese is 0.3 mg/L. Exceedances are identified with BOLD text.
4. All data for Total metals, with the exception of the following overburden wells for Sept. 2014 (MW-4, MW-9, MW-10, OP-2, OP-5, AE-1A, AE-2A, AE-3A, AE-4A, FPC-6A, FPC-7A, FPC-8A, FPC-9A and FPC-11A)
5. Residential results for January 2107 are reported for the May 2107 data.
6. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)
Nickel in Groundwater
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	0.014	0.011	NA	0.009	0.013	0.019	**0.15**	0.009	0.01	NS	0.013	0.008	NS	0.015	0.009	0.008	NS	NS	0.011	NS	0.008	0.005	0.006J	0.008	0.008
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	0.039	0.021	NA	0.014	0.032	0.01	**0.41**	0.099	**0.13**	NS	**0.15**	0.009	0.008	NS	0.012	0.006	NS	NS	0.008	NS	0.007	0.009J	0.007J	0.009	0.008
MW-5D	0.021	0.021 J	NA	0.017	0.019	0.016	0.017	< 0.002	0.011	NS	0.012	0.01	0.009	NS	0.009	0.009	NS	NS	INT	NS	0.009	0.006	0.008J	0.013	0.008
MW-5S	0.027	0.021	NA	0.024	0.023	0.02	0.022	< 0.002	0.022	NS	0.019	0.014	0.011	NS	0.01	0.01	NS	NS	INT	NS	0.013	0.008	0.01J	0.008	0.008
MW-6	< 0.002	0.003	NA	< 0.005	0.003	< 0.002	< 0.004	< 0.002	0.003	NS	0.001	0.002	NS	0.002	0.002	0.004	NS	NS	0.002	NS	0.003	0.003	0.003J	0.002	0.004
MW-8	0.018	0.018	NA	0.014	0.018	0.019	0.02	0.018	0.019	NS	0.026	0.022	0.017	NS	0.019	0.02	NS	NS	INT	NS	0.021	0.016	0.019J	0.021	0.022
MW-9	0.012	0.013	NA	0.028	0.018	0.01	0.014	0.005	0.016	NS	0.007	0.004	0.005	NS	0.005	0.014	NS	NS	0.008	NS	0.009	0.007	0.007J	0.003	0.011
MW-10	0.01	0.003	NA	0.012	0.029	0.012	0.014	< 0.002	0.008	NS	0.003	0.005	0.006	NS	0.004	0.005	NS	NS	0.002	NS	0.003	0.004	0.003J	0.002	0.013
MW-11	0.019	0.022	NA	0.015	0.014	0.01	0.018	0.008	0.012	NS	0.018	0.008	0.006	NS	0.005	0.005	NS	NS	INT	NS	0.007	0.006	0.005J	0.008	0.006
OP-2	0.015	0.012	NA	0.01	0.01	0.008	0.011	0.007	0.007	NS	0.006	0.007	0.009	NS	0.007	0.034	NS	NS	0.006	NS	0.01	0.01	0.01J	0.008	0.01
OP-5	0.039	0.022	NA	0.031	0.027	0.028	0.031	< 0.002	0.033	NS	0.03	0.025	0.027	NS	0.024	0.026	NS	NS	0.017	NS	0.015	0.014	0.015J	0.034	0.029
Operable Unit 2 Wells																									
AE-1A	< 0.005	< 0.001	NA	< 0.001	0.011	< 0.002	0.005	< 0.002	0.005	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	0.013	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
AE-1B	0.003	0.001	NA	0.002	0.001	< 0.002	0.002	< 0.002	NS	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	0.001	< 0.001	< 0.001	<0.001
AE-2A	0.025	0.026	NA	0.03	0.024	0.019	0.018	0.012	0.012	NS	0.012	0.01	0.009	NS	0.008	0.008	NS	NS	0.017	NS	0.007	0.007	0.007J	0.008	0.007
AE-2B	0.08	0.028	NA	0.02	0.014	0.016	0.03	0.01	0.013	NS	0.01	0.01	0.009	NS	0.007	0.008	NS	NS	0.008	NS	0.007	0.006	0.008J	0.008	0.007
AE-3A	0.016	0.015	NA	0.025	0.015	0.011	0.013	0.008	0.008	NS	0.009	0.008	0.007	NS	0.006	0.007	NS	NS	0.006	NS	0.007	0.006	0.007J	0.006	0.007
AE-3B	0.02	0.018	NA	0.014	0.016	0.011	0.014	0.008	0.008	NS	0.009	0.007	0.006	NS	0.005	0.006	NS	NS	INT	NS	0.008	0.006	0.007J	0.006	0.008
AE-4A	NS	NS	NS	NS	0.04	< 0.002	0.003	< 0.002	0.007	NS	0.002	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	0.001J	<0.001	0.001
AE-4B	NS	NS	NS	NS	0.084	0.004	0.003	< 0.004	0.003	NS	0.002	0.001	0.001	NS	< 0.001	< 0.001	NS	NS	< 0.001	NS	< 0.001	< 0.001	< 0.001	0.003	0.004
FPC-2A	< 0.005	< 0.001	NA	NA	< 0.001	< 0.002	0.002	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 0.001	< 0.002	0.002	< 0.002	< 0.001	NS	< 0.001	0.002	< 0.001	NS	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.002J	<0.001	<0.001
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001	<0.001	<0.001
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001	<0.001	<0.001
FPC-4B	NS	NS	NS	NS	0.002	< 0.002	0.002	< 0.002	0.001	NS	0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-5A	0.01	0.004	NA	0.013	0.006	0.011	0.011	0.008	0.004	NS	0.01	0.007	0.007	NS	0.006	0.006	NS	NS	0.006	NS	NS	NS	NS	NS	NS
FPC-5B	0.02	0.017	NA	0.005	0.014	0.005	0.008	0.005	0.008	NS	0.006	0.007	0.006	NS	0.005	0.005	NS	NS	INT	NS	0.006	0.005	0.006J	0.007	0.006
FPC-6A	0.008	0.005	NA	NS	0.027	0.004	0.005	< 0.002	0.005	NS	0.002	0.005	0.006	NS	0.005	0.006	NS	NS	0.005	NS	0.006	0.006	0.005J	0.005	0.006
FPC-6B	< 0.01	0.004	NA	0.007	0.006	0.017	0.019	< 0.004	0.013	NS	0.008	0.003	0.004	NS	0.004	0.004	NS	NS	INT	NS	0.003	0.003	0.002J	0.004	0.004
FPC-7A	NS	NS	NS	NS	0.006	NA	0.006	0.003	0.013	NS	0.007	0.004	0.004	NS	0.003	0.004	NS	NS	0.003	NS	0.003	0.003	0.003J	0.004	0.005
FPC-7B	NS	NS	NS	NS	0.003	NA	0.013	< 0.004	0.002	NS	0.018	0.002	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	0.01	0.002
FPC-8A	< 0.01	0.004	NA	0.012	0.005	< 0.002	0.007	< 0.004	0.002	NS	< 0.001	0.004	0.005	NS	0.003	0.003	NS	NS	0.001	NS	0.002	<0.001	0.002J	<0.001	0.001
FPC-8B	< 0.005	< 0.001	NA	< 0.002	< 0.001	< 0.002	0.003	< 0.002	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.001	NS	NS	INT	NS	< 0.001	< 0.001	< 0.001	< 0.001	<0.001
FPC-9A	0.01	0.012	NA	0.009	0.008	< 0.002	0.002	0.004	0.003	NS	0.004	0.003	0.003	NS	0.003	0.003	NS	NS	0.004	NS	0.006	0.003	0.005J	0.004	0.004
FPC-9B	< 0.002	NS	NS	< 0.005	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.001
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	0.016	0.01	0.028	0.003	0.009	NS	0.004	0.003	< 0.001	NS	0.001	< 0.001	NS	NS	NS	NS	0.003	<0.001	0.001J	<0.001	<0.001
FPC-11B	NS	NS	NS	NS	0.05	0.02	**0.15**	< 0.002	0.013	NS	0.012	0.003	< 0.001	NS	0.03	0.002	NS	NS	NS	NS	INT	0.005	0.006J	0.002	0.002
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	0.009	0.014	NA	0.01	0.013	0.01	0.015	0.007	0.008	NS	0.009	0.009	0.009	NS	0.008	0.008	NS	NS	INT	NS	0.006	0.004	0.005J	0.007	0.007
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.001
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	0.005	NS	0.004	0.005	0.004	NS	0.003	0.002	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS
R-5	NS	NA	NS	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NA	NS	NS	NS	NS	NS	NA	NA	NA	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NS	NA	NA	NA	NS	NS
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS	NS
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NA	NA	NS	NS

Table Notes:

1. All data in milligrams per liter (mg/L), parts per million - Analyzed by Method 200.8
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Nickel is 0.1 mg/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Nickel is 0.1 mg/L. Exceedances are identified with BOLD text.
4. All data for Total metals, with the exception of the following overburden wells for Sept. 2014 (MW-4, MW-9, MW-10, OP-2, OP-5, AE-1A, AE-2A, AE-3A, AE-4A, FPC-6A, FPC-7A, FPC-8A, FPC-9A and FPC-11A)
5. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Vanadium in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	0.013	0.004	NA	< 0.002	0.006	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	0.007	0.004	NA	0.003	0.008	< 0.002	**0.35**	0.063	0.082	NS	0.091	0.002	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
MW-5D	0.004	0.002	NA	< 0.002	0.004	< 0.002	0.003	< 0.004	0.001	NS	0.001	0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
MW-5S	0.001	0.004	NA	< 0.04	< 0.002	0.003	0.004	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
MW-6	< 0.001	< 0.001	NA	< 0.001	< 0.002	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	NS	< 0.001	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
MW-8	0.001	0.001	NA	< 0.002	< 0.002	< 0.002	0.003	< 0.004	0.001	NS	0.002	0.002	0.001	NS	0.002	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
MW-9	0.004	0.003	NA	0.009	0.004	0.003	0.007	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
MW-10	< 0.001	0.001	NA	0.002	< 0.002	0.003	0.004	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
MW-11	0.002	0.002	NA	0.002	0.006	0.003	0.003	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
OP-2	0.003	0.005	NA	0.003	0.008	< 0.002	0.004	< 0.004	< 0.001	NS	0.001	0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
OP-5	0.009	0.002	NA	< 0.002	0.003	< 0.002	0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
Operable Unit 2 Wells																									
AE-1A	< 0.002	< 0.001	NA	< 0.002	0.005	< 0.002	< 0.002	< 0.004	0.003	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	0.01	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
AE-1B	< 0.001	< 0.001	NA	< 0.002	< 0.002	< 0.002	< 0.002	< 0.004	NS	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
AE-2A	0.009	0.004	NA	< 0.004	0.006	0.002	0.004	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
AE-2B	0.076	0.007	NA	0.006	0.009	0.005	< 0.01	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
AE-3A	< 0.002	0.002	NA	< 0.002	0.005	< 0.002	< 0.002	< 0.004	< 0.001	NS	0.001	0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
AE-3B	< 0.002	0.002	NA	< 0.002	0.005	0.004	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
AE-4A	NS	NS	NS	NS	0.039	< 0.002	< 0.002	< 0.002	< 0.001	NS	0.002	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
AE-4B	NS	NS	NS	NS	0.12	< 0.002	< 0.002	< 0.004	0.003	NS	0.002	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-2A	NA	0.001	NA	NA	< 0.001	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 0.002	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.005	< 0.005	<0.005
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.005	< 0.005	<0.005
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.005	< 0.005	<0.005
FPC-4B	NS	NS	NS	NS	< 0.002	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-5A	< 0.002	0.003	NA	< 0.01	0.002	0.004	< 0.002	< 0.004	< 0.001	NS	0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	NS	NS	NS	NS	NS
FPC-5B	< 0.002	0.003	NA	< 0.002	< 0.002	< 0.002	0.003	< 0.004	0.001	NS	0.001	0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-6A	< 0.002	0.001	NA	NS	0.006	< 0.002	0.003	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-6B	< 0.001	0.003	NA	< 0.002	0.004	< 0.002	< 0.004	< 0.004	0.003	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-7A	NS	NS	NS	NS	< 0.002	NA	< 0.002	< 0.004	0.002	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-7B	NS	NS	NS	NS	< 0.002	NA	0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-8A	0.009	0.006	NA	0.016	0.005	< 0.002	0.008	< 0.004	0.001	NS	< 0.001	0.007	0.006	NS	0.002	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-8B	< 0.002	< 0.001	NA	< 0.004	< 0.002	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-9A	0.006	0.001	NA	< 0.002	0.004	< 0.002	< 0.002	< 0.004	< 0.001	NS	< 0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	< 0.005	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-9B	< 0.001	NS	NS	< 0.001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.005
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	0.004	< 0.002	0.008	< 0.004	0.003	NS	0.001	< 0.001	< 0.001	NS	0.002	< 0.005	NS	NS	NS	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
FPC-11B	NS	NS	NS	NS	0.019	< 0.002	0.048	< 0.004	0.001	NS	< 0.001	< 0.001	< 0.001	NS	0.012	< 0.005	NS	NS	NS	NS	INT	0.007 J+	NS	NS	<0.005
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	0.005	0.002	NA	< 0.004	< 0.002	< 0.002	< 0.002	< 0.004	< 0.001	NS	0.001	< 0.001	< 0.001	NS	< 0.001	< 0.005	NS	NS	INT	NS	< 0.005	< 0.005	< 0.005	< 0.005	<0.005
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.005
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.005
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	0.001	0.001	0.001	NS	< 0.001	< 0.005	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 0.001	NS	0.001	0.001	NS	< 0.001	< 0.001	< 0.005	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	NA	NS	NS	NA	NA	NA	NS	NS	NA	NA	NA	NA	NS	NA	NA	NA	NS	NA	NA	NA	NA	NA	NS	NS
R-5	NS	NA	NS	NS	NA	NA	NA	NS	NS	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NS	NA	NA	NA	NS	NS
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA	NA	NA	NA	NS	NS
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NS	NA	NA	NA	NS	NS

Table Notes:

1. All data in milligrams per liter (mg/L), parts per million - Analyzed by Method 200.8
2. An NHDES Ambient Groundwater Quality Standard (AGQS) for Vanadium has not been established.
3. EPA Cleanup Level (CL) for Vanadium is 0.26 mg/L. Exceedances are identified with BOLD text.
4. All data for Total metals, with the exception of the following overburden wells for Sept. 2014 (MW-4, MW-9, MW-10, OP-2, OP-5, AE-1A, AE-2A, AE-3A, AE-4A, FPC-6A, FPC-7A, FPC-8A, FPC-9A and FPC-11A)
5. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Benzene in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	2	3	2	2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	< 2	< 2	1	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-5D	**6**	< 2	3	2	< 2	2	< 2	2	3	NS	2	2	2	NS	2	2	NS	NS	INT	NS	1	2	1	2	2
MW-5S	**8**	**7**	**6**	**6**	2	< 2	< 2	< 2	5	NS	4	3	4	NS	4	3	NS	NS	INT	NS	2	2	2	2	2
MW-6	< 2	< 2	1	< 2	< 2	< 2	< 2	< 2	< 1	NS	< 1	< 1	NA	< 1	< 1	< 1	NS	NS	< 1	NS	< 1	<1	<1	<1	<1
MW-8	**8**	5	5	3	4	< 2	3	5	3	NS	4	4	**6**	NS	**6**	**6**	NS	NS	INT	NS	3	3	2	2	3
MW-9	5	3	**7**	**10**	5	< 2	5	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-10	< 2	< 2	2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-11	**19**	**22**	**26**	**22**	**14**	**7**	**8**	5	**8**	NS	5	4	3	NS	2	2	NS	NS	INT	NS	2	2	1	2	2
OP-2	5	3	1	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
OP-5	< 2	< 2	1	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
Operable Unit 2 Wells																									
AE-1A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-1B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NS	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-2A	3	3	2	3	< 2	< 2	< 2	< 2	2	NS	< 1	< 1	1	NS	1	< 1	NS	NS	< 1	NS	< 1	< 1	< 1	< 1	<1
AE-2B	**10**	4	**6**	**8**	5	3	4	3	5	NS	5	2	2	NS	1	2	NS	NS	2	NS	2	1	<1	<1	<1
AE-3A	4	2	3	3	2	< 2	< 2	< 2	2	NS	2	2	2	NS	1	1	NS	NS	1	NS	2	2	1	1	1
AE-3B	4	4	3	3	2	< 2	< 2	< 2	< 1	NS	< 1	1	1	NS	2	1	NS	NS	INT	NS	< 1	< 1	1	1	1
AE-4A	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 1	NS	< 1	< 1	< 1	NS	< 1	< 1	NS	NS	< 1	NS	< 1	< 1	< 1	<1	<1
AE-4B	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 1	NS	< 1	< 1	< 1	NS	< 1	< 1	NS	NS	< 1	NS	< 1	< 1	< 1	< 1	<1
FPC-2A	NA	NA	NA	NA	< 2	< 2	< 2	< 2	< 1	NS	< 1	< 1	< 1	NS	< 1	< 1	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 1	NS	< 1	< 1	< 1	NS	< 1	< 1	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1	<1	<1
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1	<1	<1
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1	<1	<1
FPC-4B	NS	NS	NS	NS	< 2	< 2	NA	< 2	< 1	NS	< 1	< 1	< 1	NS	< 1	< 1	NS	NS	INT	NS	< 1	NA	<1	<1	<1
FPC-5A	< 2	< 2	5	5	< 2	3	2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NS	NS	NS	NS	NS
FPC-5B	**6**	5	< 2	< 2	4	< 2	5	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-6A	< 2	< 2	NS	NS	3	< 2	< 2	< 2	2	NS	< 1	< 1	2	NS	1	1	NS	NS	< 1	NS	1	1	<1	<1	<1
FPC-6B	4	2	4	4	3	3	3	< 2	2	NS	1	< 1	2	NS	1	2	NS	NS	INT	NS	< 1	< 1	< 1	< 1	<1
FPC-7A	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-7B	NS	NS	NS	NS	< 2	< 2	< 2	NA	< 1	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-8A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 1	NS	< 1	< 1	< 1	NS	< 1	< 1	NS	NS	< 1	NS	< 1	< 1	< 1	< 1	<1
FPC-8B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NS	< 1	< 1	< 1	NS	< 1	< 1	NS	NS	INT	NS	< 1	< 1	< 1	< 1	<1
FPC-9A	4	4	3	3	3	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-9B	< 2	NS	NS	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	NA	NA	NA	NA	NA
FPC-11B	NS	NS	NS	NS	< 2	< 2	< 2	< 2	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	INT	NA	NA	NA	NA
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	**10**	**10**	**10**	**11**	**9**	**7**	**7**	**6**	**6**	NS	**6**	**6**	**7**	NS	**6**	**6**	NS	NS	INT	NS	4	3	2	4	3
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 1	NS	< 1	< 1	< 1	NS	< 1	< 1	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 1	NS	< 1	< 1	NS	< 1	< 1	< 1	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
R-5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table Notes:

1. All data in micrograms per liter (ug/L), parts per billion - Analyzed by Method 8260B (monitoring well) or Method 524 (water supply wells)
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Benzene is 5 ug/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Benzene is 5 ug/L. Exceedances are identified with BOLD text.
4. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Chlorobenzene in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 2	6	5	5	3	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	5	11	7	5	7	5	4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-5D	8	3	4	4	4	4	3	4	5	NS	4	3	4	NS	3	3	NS	NS	INT	NS	< 2	< 2	< 2	2	2
MW-5S	7	7	6	5	3	< 2	< 2	< 2	3	NS	2	2	3	NS	2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	1	1
MW-6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	NA	< 2	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
MW-8	3	3	3	< 2	2	2	2	4	3	NS	4	3	7	NS	23	9	NS	NS	INT	NS	2	3	2	3	4
MW-9	62	66	**122**	**160**	80	25	79	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-10	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-11	6	5	4	4	4	3	3	2	3	NS	2	2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	1	<1
OP-2	9	6	4	4	3	2	2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
OP-5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
Operable Unit 2 Wells																									
AE-1A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-1B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NS	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-2A	6	8	5	8	4	3	3	< 2	5	NS	2	2	3	NS	3	< 2	NS	NS	< 2	NS	2	<2	<2	<2	<1
AE-2B	8	4	6	8	5	3	3	3	5	NS	5	3	3	NS	2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-3A	12	7	11	9	8	6	5	6	9	NS	8	7	6	NS	6	6	NS	NS	5	NS	6	7	5	5	6
AE-3B	10	11	9	8	6	4	2	< 2	< 2	NS	< 2	5	5	NS	7	5	NS	NS	INT	NS	3	3	4	5	5
AE-4A	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-4B	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-2A	NA	NA	NA	NA	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2	<2	<1
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2	<2	<1
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2	<2	<1
FPC-4B	NS	NS	NS	NS	< 2	< 2	NA	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	NA	<2	<2	<1
FPC-5A	< 2	< 2	16	13	< 2	9	6	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NS	NS	NS	NS	NS
FPC-5B	20	17	< 2	< 2	11	< 2	76	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-6A	< 2	< 2	< 2	NS	9	4	3	3	5	NS	< 2	3	5	NS	3	4	NS	NS	3	NS	3	4	<2	2	3
FPC-6B	7	4	9	8	6	7	7	3	7	NS	4	3	5	NS	4	4	NS	NS	INT	NS	2	2	<2	1	3
FPC-7A	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-7B	NS	NS	NS	NS	< 2	< 2	< 2	NA	< 2	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-8A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-8B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
FPC-9A	11	10	8	9	8	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-9B	< 2	NS	NS	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	NA	NA	NA	NA	NA
FPC-11B	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	INT	NA	NA	NA	NA
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	9	9	10	13	12	9	10	9	10	NS	10	11	11	NS	11	9	NS	NS	INT	NS	6	5	3	6	5
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 2	NS	< 2	< 2	NS	< 2	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
R-5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	< 0.5	NS	NS	<0.5	<0.5	< 0.5	< 0.5
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	NS	<0.5	<0.5	< 0.5	< 0.5

Table Notes:
1. All data in micrograms per liter (ug/L), parts per billion - Analyzed by Method 8260B (monitoring well) or Method 524 (water supply wells)
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Chlorobenzene is 100 ug/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Chlorobenzene is 100 ug/L. Exceedances are identified with BOLD text.
4. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Trans-1,2-Dichloroethene in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-5D	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
MW-5S	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
MW-6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	NA	< 2	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
MW-8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
MW-9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-10	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-11	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
OP-2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
OP-5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
Operable Unit 2 Wells																									
AE-1A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-1B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NS	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-2A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-2B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-3A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-3B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
AE-4A	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-4B	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-2A	NA	NA	NA	NA	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	< 2	<1
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	< 2	<1
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	< 2	<1
FPC-4B	NS	NS	NS	NS	< 2	< 2	NA	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	NA	<2	<2	<1
FPC-5A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NS	NS	NS	NS	NS
FPC-5B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-6A	< 2	< 2	< 2	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-6B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
FPC-7A	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-7B	NS	NS	NS	NS	< 2	< 2	< 2	NA	< 2	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-8A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-8B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
FPC-9A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-9B	< 2	NS	NS	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	NA	NA	NA	NA	NA
FPC-11B	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	INT	NA	NA	NA	NA
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 2	NS	< 2	< 2	NS	< 2	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
R-5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table Notes:

1. All data in micrograms per liter (ug/L), parts per billion - Analyzed by Method 8260B (monitoring well) or Method 524 (water supply wells)
2. NHDES Ambient Groundwater Quality Standard (AGQS) for Trans-1,2-dichloroethene (Trans-DCE) is 100 ug/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for Trans-1,2-dichloroethene (Trans-DCE) is 100 ug/L. Exceedances are identified with BOLD text.
4. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9
Contaminants of Concern Analytical Data (November 2000 – September 2017)
1,2-Dichloropropane in Groundwater
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-5D	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
MW-5S	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
MW-6	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	NA	< 2	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
MW-8	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
MW-9	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-10	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-11	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
OP-2	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
OP-5	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
Operable Unit 2 Wells																									
AE-1A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-1B	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NS	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-2A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-2B	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-3A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-3B	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
AE-4A	NS	NS	NS	NS	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-4B	NS	NS	NS	NS	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-2A	NA	NA	NA	NA	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	< 2	<1
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	< 2	<1
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	< 2	<1
FPC-4B	NS	NS	NS	NS	< 4	< 4	NA	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	NA	NA	NA	<1
FPC-5A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NS	NS	NS	NS	NS
FPC-5B	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-6A	< 4	< 4	< 4	NS	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-6B	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
FPC-7A	NS	NS	NS	NS	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-7B	NS	NS	NS	NS	< 4	< 4	< 4	NA	< 2	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-8A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-8B	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
FPC-9A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-9B	< 4	NS	NS	< 4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	NA	NA	NA	NA	NA
FPC-11B	NS	NS	NS	NS	< 4	< 4	< 4	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	INT	NA	NA	NA	NA
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 2	NS	< 2	< 2	NS	< 2	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
R-5	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table Notes:
1. All data in micrograms per liter (ug/L), parts per billion - Analyzed by Method 8260B (monitoring well) or Method 524 (water supply wells)
2. NHDES Ambient Groundwater Quality Standard (AGQS) for 1,2-dichloropropane is 5 ug/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for 1,2-dichloropropane is 5 ug/L. Exceedances are identified with BOLD text.
4. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:
NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9
Contaminants of Concern Analytical Data (November 2000 – September 2017)
Tetrachloroethene (PCE) in Groundwater
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-5D	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
MW-5S	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
MW-6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	NA	< 2	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
MW-8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
MW-9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-10	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-11	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
OP-2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
OP-5	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
Operable Unit 2 Wells																									
AE-1A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-1B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NS	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-2A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-2B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-3A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-3B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
AE-4A	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
AE-4B	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-2A	NA	NA	NA	NA	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	< 2	<1
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	< 2	<1
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	< 2	<1
FPC-4B	NS	NS	NS	NS	< 2	< 2	NA	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	NA	NA	NA	<1
FPC-5A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NS	NS	NS	NS	NS
FPC-5B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-6A	< 2	< 2	< 2	NS	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-6B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
FPC-7A	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-7B	NS	NS	NS	NS	< 2	< 2	< 2	NA	< 2	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-8A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	< 2	NS	< 2	< 2	< 2	< 2	<1
FPC-8B	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
FPC-9A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-9B	< 2	NS	NS	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	NA	NA	NA	NA	NA
FPC-11B	NS	NS	NS	NS	< 2	< 2	< 2	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	INT	NA	NA	NA	NA
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	INT	NS	< 2	< 2	< 2	< 2	<1
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 2	NS	< 2	< 2	< 2	NS	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 2	NS	< 2	< 2	NS	< 2	< 2	< 2	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
R-5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Table Notes:
1. All data in micrograms per liter (ug/L), parts per billion - Analyzed by Method 8260B (monitoring well) or Method 524 (water supply wells)
2. NHDES Ambient Groundwater Quality Standard (AGQS) for tetrachloroethene (PCE) is 5 ug/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for tetrachloroethene (PCE) is 3.5 ug/L. Exceedances are identified with BOLD text.
4. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:
NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

Methyl Ethyl Ketone (MEK) in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-5D	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
MW-5S	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
MW-6	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	NA	< 10	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
MW-8	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
MW-9	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-10	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-11	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
OP-2	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
OP-5	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
Operable Unit 2 Wells																									
AE-1A	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-1B	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NS	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-2A	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
AE-2B	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
AE-3A	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
AE-3B	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
AE-4A	NS	NS	NS	NS	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
AE-4B	NS	NS	NS	NS	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
FPC-2A	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 10	< 10	<10
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 10	< 10	<10
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 10	< 10	<10
FPC-4B	NS	NS	NS	NS	< 50	< 50	NA	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	NA	NA	NA	<10
FPC-5A	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NS	NS	NS	NS	NS
FPC-5B	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-6A	< 50	< 50	< 50	NS	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
FPC-6B	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
FPC-7A	NS	NS	NS	NS	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-7B	NS	NS	NS	NS	< 50	< 50	< 50	NA	< 10	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-8A	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
FPC-8B	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
FPC-9A	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-9B	< 50	NS	NS	< 50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	NA	NA	NA	NA	NA
FPC-11B	NS	NS	NS	NS	< 50	< 50	< 50	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	INT	NA	NA	NA	NA
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 10	NS	< 10	< 10	NS	< 10	< 10	< 10	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	< 12.5	< 12.5	< 12.5	< 12.5	< 12.5	< 12.5	< 12.5	NS	< 5	< 5	< 5	< 5	NS	< 5	< 5	< 5	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5
R-5	NS	< 12.5	< 12.5	< 12.5	< 12.5	< 12.5	< 12.5	< 12.5	NS	< 5	< 5	< 5	< 5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 5	< 5	NS	< 5	NS	< 5	< 5	< 5	< 5	< 5
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 5	< 5	NS	< 5	< 5	< 5	< 5	< 5

Table Notes:

1. All data in micrograms per liter (ug/L), parts per billion - Analyzed by Method 8260B (monitoring well) or Method 524 (water supply wells)
2. NHDES Ambient Groundwater Quality Standard (AGQS) for methyl ethyl ketone (MEK, 2-butanone) is 4000 ug/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for methyl ethyl ketone (MEK, 2-butanone) is 200 ug/L. Exceedances are identified with BOLD text.
4. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9
Contaminants of Concern Analytical Data (November 2000 – September 2017)
Tetrahydrofuran (THF) in Groundwater
Coakley Landfill Superfund Site
North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-00	Apr-01	Aug-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																									
BP-4	< 30	< 30	< 30	< 30	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	< 30	< 30	< 30	< 30	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-5D	**162**	60	< 30	101	85	142	88	110	110	NS	110	90	90	NS	110	90	NS	NS	INT	NS	50	50	80J-	80	80
MW-5S	44	35	< 30	46	< 30	34	< 30	< 30	60	NS	40	40	40	NS	40	30	NS	NS	INT	NS	20	20	20	10	20
MW-6	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	NA	< 10	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
MW-8	**248**	**157**	< 30	**175**	**184**	**282**	**273**	**239**	**180**	NS	**180**	**180**	**160**	NS	140	100	NS	NS	INT	NS	150	140	**160J-**	110	120
MW-9	< 30	< 30	< 30	137	< 30	< 30	84	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-10	< 30	< 30	< 30	< 30	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-11	**246**	**228**	< 30	**225**	130	114	< 30	50	60	NS	30	30	20	NS	20	10	NS	NS	INT	NS	10	10	10J-	10	10
OP-2	< 30	< 30	< 30	< 30	< 30	< 30	87	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
OP-5	< 30	< 30	< 30	< 30	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
Operable Unit 2 Wells																									
AE-1A	< 30	< 30	< 30	< 30	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-1B	< 30	< 30	< 30	< 30	< 30	< 30	< 30	NA	NS	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-2A	30	33	< 30	45	< 30	< 30	< 30	< 30	20	NS	< 10	10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
AE-2B	**157**	86	< 30	127	104	92	81	69	60	NS	70	50	30	NS	30	30	NS	NS	30	NS	30	30	20	20	20
AE-3A	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
AE-3B	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
AE-4A	NS	NS	NS	NS	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
AE-4B	NS	NS	NS	NS	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
FPC-2A	NA	NA	NA	NA	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NS	NS	NS	NS	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 10	< 10	<10
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 10	< 10	<10
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 10	< 10	<10
FPC-4B	NS	NS	NS	NS	< 30	< 30	NA	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	NA	NA	NA	<10
FPC-5A	< 30	< 30	< 30	< 30	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NS	NS	NS	NS	NS
FPC-5B	< 30	< 30	< 30	< 30	< 30	< 30	79	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-6A	< 30	< 30	< 30	NS	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
FPC-6B	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
FPC-7A	NS	NS	NS	NS	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-7B	NS	NS	NS	NS	< 30	< 30	< 30	NA	< 10	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-8A	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	< 10	NS	< 10	< 10	< 10	< 10	<10
FPC-8B	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	NA	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	INT	NS	< 10	< 10	< 10	< 10	<10
FPC-9A	32	< 30	< 30	30	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-9B	< 30	NS	NS	< 30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NS	NS	NS	NS	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	NA	NA	NA	NA	NA
FPC-11B	NS	NS	NS	NS	< 30	< 30	< 30	NA	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	INT	NA	NA	NA	NA
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	**169**	120	< 30	112	113	131	151	83	80	NS	70	80	70	NS	70	50	NS	NS	INT	NS	20	20	20J+	30	20
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10
GZ-123	NS	NS	NS	NS	NS	NS	NS	NS	< 10	NS	< 10	< 10	< 10	NS	< 10	< 10	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NS	NS	NS	NS	NS	NS	NS	NS	< 10	NS	< 10	< 10	NS	< 10	< 10	< 10	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																									
R-3	NS	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	NS	< 5	< 5	< 5	< 5	NS	< 5	< 5	< 5	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5
R-5	NS	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	< 7.5	NS	< 5	< 5	< 5	< 5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 5	< 5	NS	< 5	NS	< 5	< 5	< 5	< 5	< 5
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 5	< 5	NS	< 5	< 5	< 5	< 5	< 5

Table Notes:
1. All data in micrograms per liter (ug/L), parts per billion - Analyzed by Method 8260B (monitoring well) or Method 524 (water supply wells)
2. NHDES Ambient Groundwater Quality Standard (AGQS) for tetrahydrofuran (THF) is 154 ug/L. Exceedances are identified with GRAY shading.
3. EPA Cleanup Level (CL) for tetrahydrofuran (THF) is 154 ug/L. Exceedances are identified with BOLD text.
4. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:
NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

tert-Butyl Alchohol (TBA) in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Nov-07	Jan-08	Aug-08	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells																	
BP-4	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-5D	60	NS	50	40	40	NS	50	40	NS	NS	INT	NS	60	40	50	40	50
MW-5S	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	INT	NS	< 30	< 30	< 30	<30	<30
MW-6	< 30	NS	< 30	< 30	NA	< 30	< 30	< 30	NS	NS	< 30	NS	< 30	< 30	< 30	<30	<30
MW-8	70	NS	70	60	50	NS	50	40	NS	NS	INT	NS	50	40	50	50	40
MW-9	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-10	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
MW-11	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	INT	NS	< 30	< 30	< 30	<30J	<30
OP-2	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
OP-5	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
Operable Unit 2 Wells																	
AE-1A	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-1B	NS	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
AE-2A	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	< 30	NS	< 30	< 30	< 30	<30	<30
AE-2B	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	< 30	NS	< 30	< 30	< 30	<30	<30
AE-3A	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	< 30	NS	< 30	< 30	< 30	<30	<30
AE-3B	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	INT	NS	< 30	< 30	< 30	<30	<30
AE-4A	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	< 30	NS	< 30	< 30	< 30	<30J	<30
AE-4B	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	< 30	NS	< 30	< 30	< 30	<30	<30
FPC-2A	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 30	<30J	<30
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 30	<30J	<30
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 30	<30J	<30
FPC-4B	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	INT	NS	< 30	NA	NA	NA	<30
FPC-5A	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NS	NS	NS	NS	NS
FPC-5B	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-6A	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	< 30	NS	< 30	< 30	< 30	<30	<30
FPC-6B	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	INT	NS	< 30	< 30	< 30	<30	<30
FPC-7A	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-7B	< 30	NS	NA	NA	NA	NS	NA	NA	NS	NS	INT	NS	NA	NA	NA	NA	NA
FPC-8A	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	< 30	NS	< 30	< 30	< 30	<30	<30
FPC-8B	NA	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	INT	NS	< 30	< 30	< 30	<30	<30
FPC-9A	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	NA	NA
FPC-9B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<30
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	NA	NA	NA	NA	NA
FPC-11B	NA	NS	NA	NA	NA	NS	NA	NA	NS	NS	NS	NS	INT	NA	NA	NA	NA
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	INT	NS	< 30	< 30	< 30	<30	<30
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<30
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<30
GZ-123	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	< 30	NS	< 30	< 30	NS	< 30	< 30	< 30	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells																	
R-3	NS	< 30	< 30	< 30	< 30	NS	< 30	< 30	< 30	NS	< 30	< 30	< 30	< 30	< 30	< 30	< 30
R-5	NS	< 30	< 30	< 30	< 30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	NS	NS	NS	< 30	< 30	NS	< 30	NS	< 30	< 30	< 30	< 30	< 30
339BHR	NS	NS	NS	NS	NS	NS	NS	NS	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
415BHR	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 30	< 30	NS	< 30	< 30	< 30	< 30	< 30

Table Notes:

1. All data in micrograms per liter (ug/L), parts per billion - Analyzed by Method 8260B (monitoring well) or Method 524 (water supply wells)
2. NHDES Ambient Groundwater Quality Standard (AGQS) for tertiary butyl alchohol (TBA) is 40 ug/L. Exceedances are identified with GRAY shading.
3. An EPA Cleanup Level (CL) for tert-Butyl Alcohol has not been established.
4. Tertiary butyl alcohol (TBA) not included on Method 8260B parameter list prior to November 2007.
5. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

1,4-Dioxane (Low Level Method) in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	Aug-09	Aug-10	Feb-11	Aug-11	Aug-12	Mar-13	Apr-13	Aug-13	Feb-14	Sep-14	Sep-15	May-16	May-17	Sep-17
Operable Unit 1 Wells														
BP-4	NA	NA	9	10	13	NS	NS	9.6	NS	12	11	11	7.5	7.9
MW-2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	NA	6	NS	6	2.5	NS	NS	4.8	NS	6.9	8.5	5.2	4.6	7.2J
MW-5D	140	150	NS	140	140	NS	NS	INT	NS	130	150	120	110	140
MW-5S	70	90	NS	70	61	NS	NS	INT	NS	49	57	42	30	37
MW-6	< 1	NA	NS	< 1	< 0.25	NS	NS	< 0.25	NS	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
MW-8	310	230	NS	200	210	NS	NS	INT	NS	200	240	190	150	150J+
MW-9	NA	16	NS	14	30	NS	NS	6.1	NS	28	26	3.5	<0.25	5.8
MW-10	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NA	<0.25	3.8
MW-11	100	45	NS	40	56	NS	NS	INT	NS	41	38	37	27	33
OP-2	NA	1	NS	1	1	NS	NS	1.2	NS	1.5	1.6	0.64	0.66	0.69
OP-5	NA	< 1	NS	< 1	NA	NS	NS	NA	NS	NA	NA	NA	<0.25	<0.25
Operable Unit 2 Wells														
AE-1A	NA	NA	NS	< 1	NA	NS	NS	NA	NS	NA	NA	NA	0.88	0.97
AE-1B	NA	NA	NS	< 1	NA	NS	NS	NA	NS	NA	NA	NA	0.97	1.1
AE-2A	NA	12	NS	14	16	NS	NS	15	NS	16	13	6.5	5.9	2.2
AE-2B	NA	110	NS	80	82	NS	NS	88	NS	87	96	70	58	67
AE-3A	NA	23	NS	19	24	NS	NS	21	NS	25	24	20	16	19
AE-3B	NA	24	NS	19	27	NS	NS	INT	NS	26	25	26	15	16
AE-4A	NA	NA	NA	NA	< 0.25	NS	NS	NA	NS	NA	<0.25	<0.25	<0.25	<0.25
AE-4B	NA	NA	NA	NA	< 0.25	NS	NS	NA	NS	NA	<0.25	<0.25	<0.25	<0.25
FPC-2A	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-2B	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-3A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.25	<0.25	<0.25
FPC-3B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.25	<0.25	<0.25
FPC-3C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.41	0.48	0.52
FPC-4B	NA	NA	NA	NA	< 0.25	NA	NA	INT	NS	NA	NA	NA	<0.25	<0.25
FPC-5A	NA	NA	NS	27	25	NS	NS	29	NS	NS	NS	NS	NS	NS
FPC-5B	NA	NA	NS	50	53	NS	NS	INT	NS	64	67	50	40	59
FPC-6A	NA	NA	NS	NA	31	NS	NS	21	NS	26	30	9.5	8	22
FPC-6B	NA	NA	NS	NA	23	NS	NS	INT	NS	19	19	7.6	7.1	19
FPC-7A	NA	NA	NA	< 1	< 0.25	NA	NA	NA	NS	NA	NA	NA	<0.25	<0.25
FPC-7B	NA	NA	NA	< 1	< 0.25	NA	NA	INT	NS	NA	NA	NA	<0.25	<0.25
FPC-8A	NA	< 1	NS	< 1	0.51	NS	NS	0.6	NS	0.60	0.70	0.58	0.48	0.85
FPC-8B	NA	1	NS	< 1	0.93	NS	NS	INT	NS	0.62	0.81	0.58	0.49	0.71
FPC-9A	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NS	14	17
FPC-9B	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.5
FPC-9C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
FPC-11A	NA	NA	NS	NA	NA	NS	NS	NA	NS	NA	NA	NS	0.93	1.2
FPC-11B	NA	NA	NS	NA	NA	NS	NS	NA	NS	INT	1.4	0.94	0.55	0.91
FPC-11C	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-105	NA	NA	NS	80	98	NS	NS	INT	NS	69	62	39	67	54
GZ-109	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.25
GZ-117	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.25
GZ-123	NA	NA	NS	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
GZ-125	NA	NA	NS	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS
Water Supply Wells														
R-3	NA	NA	NS	NA	0.4	0.45	NS	0.45	0.42	0.37	0.37	0.45	0.34	0.32
R-5	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
346BHR	NS	NS	NS	NS	< 0.25	NS	NS	< 0.25	NS	< 0.25	< 0.25	< 0.25	<0.25	<0.25
339BHR	NS	NS	NS	NS	NS	NS	0.38	0.42	0.63	0.42	0.74	0.51	0.35	0.54
415BHR	NS	NS	NS	NS	NS	NS	< 0.25	< 0.25	NS	< 0.25	< 0.25	< 0.25	<0.25	<0.25

Table Notes:

1. All data in micrograms per liter (ug/L), parts per billion - Analysis by Method 8260B SIM (a low level detection limit methodology)
2. 1,4-dioxane not included on Method 8260B parameter list prior to August 2010. First analyses by 8260B SIM were completed in Aug. 2009.
3. Results for standard Method 8260B (detection limit of 50 ug/L) are not provided in this table
4. NHDES Ambient Groundwater Quality Standard (AGQS) for 1,4-dioxane is 3 ug/L. Exceedances are identified with GRAY shading.
5. An EPA Cleanup Level (CL) for 1,4-dioxane has not been established.
6. Residential results for January 2107 are reported for the May 2107 data.
7. FPC-3 series December 2016 data is reported in May 2016.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

PFOA in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	May-16	May-17	Sep-17
Operable Unit 1 Wells			
BP-4	57.6	62.3	48.6
MW-2	NS	NS	NS
MW-4	756	1240D	887
MW-5D	61.2	119	84.1
MW-5S	647	849D	689
MW-6	NS	11.4J	5.70J
MW-8	262	435	326J+
MW-9	656	386	744
MW-10	NS	186	775
MW-11	693	799D	809
OP-2	NS	87.1	39.5
OP-5	NS	1.86J	2.77J
Operable Unit 2 Wells			
AE-1A	6.1	5.48J	4.20J
AE-1B	5.71	7.38J	4.37J
AE-2A	640	827	499
AE-2B	670	902	709
AE-3A	196	387	247
AE-3B	195	384	274
AE-4A	<8.26	<1.12	<1.17
AE-4B	1.25	<1.07	<1.18
FPC-2A	NS	NS	NS
FPC-2B	NS	NS	NS
FPC-3A	<7.66	<1.05	<1.19
FPC-3B	<8.04	<1.05	<1.17
FPC-3C	1.83J	<1.08	<1.18
FPC-4B	<8.33	<1.09	<1.19
FPC-5A	NS	NS	NS
FPC-5B	108	192	136
FPC-6A	126	93.3	143
FPC-6B	74.9	80.4	110
FPC-7A	4.45	5.64J	7.72J
FPC-7B	8.65	5.56J	12.3J
FPC-8A	8.98	10.3J	11.6J
FPC-8B	2.98	3.96J	2.26J
FPC-9A	81	111	75.7
FPC-9B	NS	NS	21.5J
FPC-9C	NS	NS	NS
FPC-11A	19.5	24.9	18.4J
FPC-11B	29.6	14.0J	14.7J
FPC-11C	NS	NS	NS
GZ-105	198	425	226
GZ-109	NS	NS	1.74J
GZ-117	NS	NS	5.16J
GZ-123	NS	NS	NS
GZ-125	NS	NS	NS
Water Supply Wells			
R-3	<8	<8	2.03J
R-5	NS	NS	NS
346BHR	<8	<8	<1.16
339BHR	25	17.8	13.5J
415BHR	<8	<8	<1.20

Table Notes:

1 All data in nanograms per liter (ng/L), parts per trillion - Analysis by Method 537 Modified

2 NHDES Ambient Groundwater Quality Standard (AGQS) for PFOA is 70 ng/L. Exceedances are identified with GRAY shading.

3 An EPA Health Advisory (HA) for PFOA is 70 ng/L. Exceedances are identfiied with Gray shading.

4 Residential results for July 2016 are reported in the May 2016 column and January 2017 results are reported in the May 2017 column. Method detection limits for the laboratory were 8 to 16 ng/L for the May 2016 and January 2017 sampling events while detection limits ranged from 1 to 3 ng/L duirng the May 2017 sampling event.

5 FPC-3 series December 2016 data is reported in May 2016.

6 EPA has not designated PFOA as a Contaminant of Concern, however, data has been included on this table for informational purposes.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

PFOS in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	May-16	May-17	Sep-17
Operable Unit 1 Wells			
BP-4	13.3	7.97J	5.73J
MW-2	NS	NS	NS
MW-4	30.8	60.6	27
MW-5D	29.3	23.9	25.2
MW-5S	84	89.5	70.3
MW-6	NS	3.79J	6.89J
MW-8	212	224J+	237
MW-9	452	429	444
MW-10	NS	105	426
MW-11	308	318	273
OP-2	NS	12.7J	7.96J
OP-5	NS	<1.05	<1.09
Operable Unit 2 Wells			
AE-1A	3.06	1.78J	2.50J
AE-1B	3.71	3.01J	2.05J
AE-2A	324	297	300
AE-2B	463	456	415
AE-3A	72.1	91.9	76.8
AE-3B	62.8	90.9	64
AE-4A	<8.26	<1.02	<1.07
AE-4B	<8.19	<0.98	<1.07
FPC-2A	NS	NS	NS
FPC-2B	NS	NS	NS
FPC-3A	<7.66	<0.96	<1.08
FPC-3B	1J	<0.96	<1.07
FPC-3C	0.976J	<0.99	<1.08
FPC-4B	<8.33	<0.99	<1.08
FPC-5A	NS	NS	NS
FPC-5B	31	30.1	34.7
FPC-6A	28.4	18.9J	19.4J
FPC-6B	17.6	13.0J	20.3J
FPC-7A	1.78	1.88J	2.26J
FPC-7B	3.27	1.35J	2.58J
FPC-8A	3.89	2.84J	3.66J
FPC-8B	1.46	2.53J	<1.12
FPC-9A	26.5	20.9J	21.8J
FPC-9B	NS	NS	4.75J
FPC-9C	NS	NS	NS
FPC-11A	5.21	1.60J	3.61J
FPC-11B	16.5	3.77J	10.8J
FPC-11C	NS	NS	NS
GZ-105	130	211	145
GZ-109	NS	NS	<1.11
GZ-117	NS	NS	17.3J
GZ-123	NS	NS	NS
GZ-125	NS	NS	NS
Water Supply Wells			
R-3	<8	<8	<1.10
R-5	NS	NS	NS
346BHR	<8	<8	1.05J
339BHR	<8	<8	<1.15
415BHR	<8	<8	<1.09

Table Notes:

1 All data in nanograms per liter (ng/L), parts per trillion - Analysis by Method 537 Modified

2 NHDES Ambient Groundwater Quality Standard (AGQS) for PFOS is 70 ng/L. Exceedances are identified with GRAY shading.

3 An EPA Health Advisory (70) for PFOA is 70 ng/L. Exceedances are identfiied with Gray shading.

4 Residential results for July 2016 are reported in the May 2016 column and January 2017 results are reported in the May 2017 column. Method detection limits for the laboratory were 8 to 16 ng/L for the May 2016 and January 2017 sampling events while detection limits ranged from 1 to 3 ng/L duirng the May 2017 sampling event.

5 FPC-3 series December 2016 data is reported in May 2016.

6 EPA has not designated PFAS as a Contaminant of Concern, however, data has been included on this table for informational purposes.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TABLE 9

Contaminants of Concern Analytical Data (November 2000 – September 2017)

PFOA and PFOS Combined in Groundwater

Coakley Landfill Superfund Site

North Hampton and Greenland, New Hampshire

Well ID / Appox. Date	May-16	May-17	Sep-17
Operable Unit 1 Wells			
BP-4	70.9	70.27J	54.33J
MW-2	NS	NS	NS
MW-4	786.8	1295.8	912.5
MW-5D	90.5	142.9	109.3
MW-5S	731	938.5	759.3
MW-6	NS	15.19J	12.59J
MW-8	474	659J+	563J+
MW-9	1108	815	1188
MW-10	NS	291	1201
MW-11	1001	1117	1082
OP-2	NS	99.8J	47.46J
OP-5	NS	1.86J	2.77J
Operable Unit 2 Wells			
AE-1A	9.16	7.26J	6.70J
AE-1B	9.42	10.39J	6.42J
AE-2A	964	1124	799
AE-2B	1133	1358	1124
AE-3A	268.1	478.9	323.3
AE-3B	257.8	474.9	338
AE-4A	ND	ND	ND
AE-4B	1.25	ND	ND
FPC-2A	NS	NS	NS
FPC-2B	NS	NS	NS
FPC-3A	ND	ND	ND
FPC-3B	1J	ND	ND
FPC-3C	2.08J	ND	ND
FPC-4B	ND	ND	ND
FPC-5A	NS	NS	NS
FPC-5B	139	222.1	170.7
FPC-6A	154.4	112.2J	162.4J
FPC-6B	92.5	93.4	130.3J
FPC-7A	6.23	7.52J	9.98J
FPC-7B	11.9	6.91J	14.88J
FPC-8A	12.9	13.14J	15.26J
FPC-8B	4.4	6.49J	2.26J
FPC-9A	107.5	131.9J	97.5
FPC-9B	NS	NS	26.25J
FPC-9C	NS	NS	NS
FPC-11A	24.7	26.5J	22.01J
FPC-11B	46.1	17.77J	25.5J
FPC-11C	NS	NS	NS
GZ-105	328	636	371
GZ-109	NS	NS	1.74J
GZ-117	NS	NS	22.46J
GZ-123	NS	NS	NS
GZ-125	NS	NS	NS
Water Supply Wells			
R-3	ND	ND	2.03J/ND
R-5	NS	NS	NS
346BHR	ND	ND	1.05J
339BHR	25	17.8	13.5J
415BHR	ND	ND	ND

Table Notes:

1. All data in nanograms per liter (ng/L), parts per trillion - Analysis by Method 537 Modified
2. NHDES Ambient Groundwater Quality Standard (AGQS) for PFOA/PFOS combined is 70 ug/L. Exceedances are identified with GRAY shading.
3. An EPA Health Advisory (HA) for PFOA/PFOS combined is 70 ng/L. Exceedances are identfiied with Gray shading.
4. Residential results for July 2016 are reported under May 2016 and January 2017 are reported under May 2017
5. FPC-3 series December 2016 data is reported in May 2016.
6. EPA has not designated the Combination of PFOA and PFAS as a Contaminant of Concern, however, data has been included on this table for informational purposes.

Abbreviations:

NA = Not Analyzed; NS = Not Sampled; INT = Interval Sampled; < ## = reported concentration is less than the detection limit (##)

TIME SERIES PLOTS

ARSENIC SUMMARY PLOTS

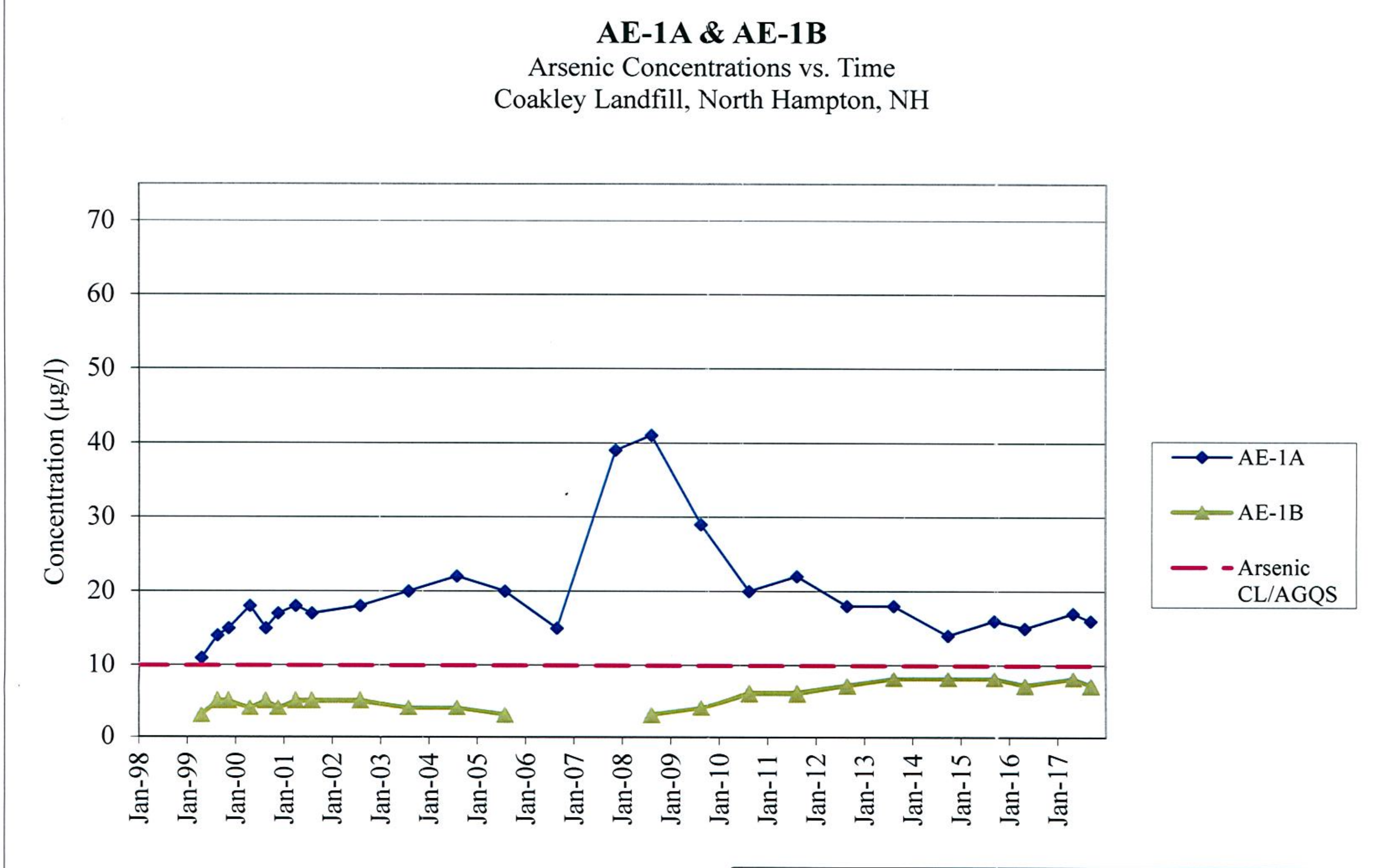
MANGANESE SUMMARY PLOTS

BENZENE SUMMARY PLOTS

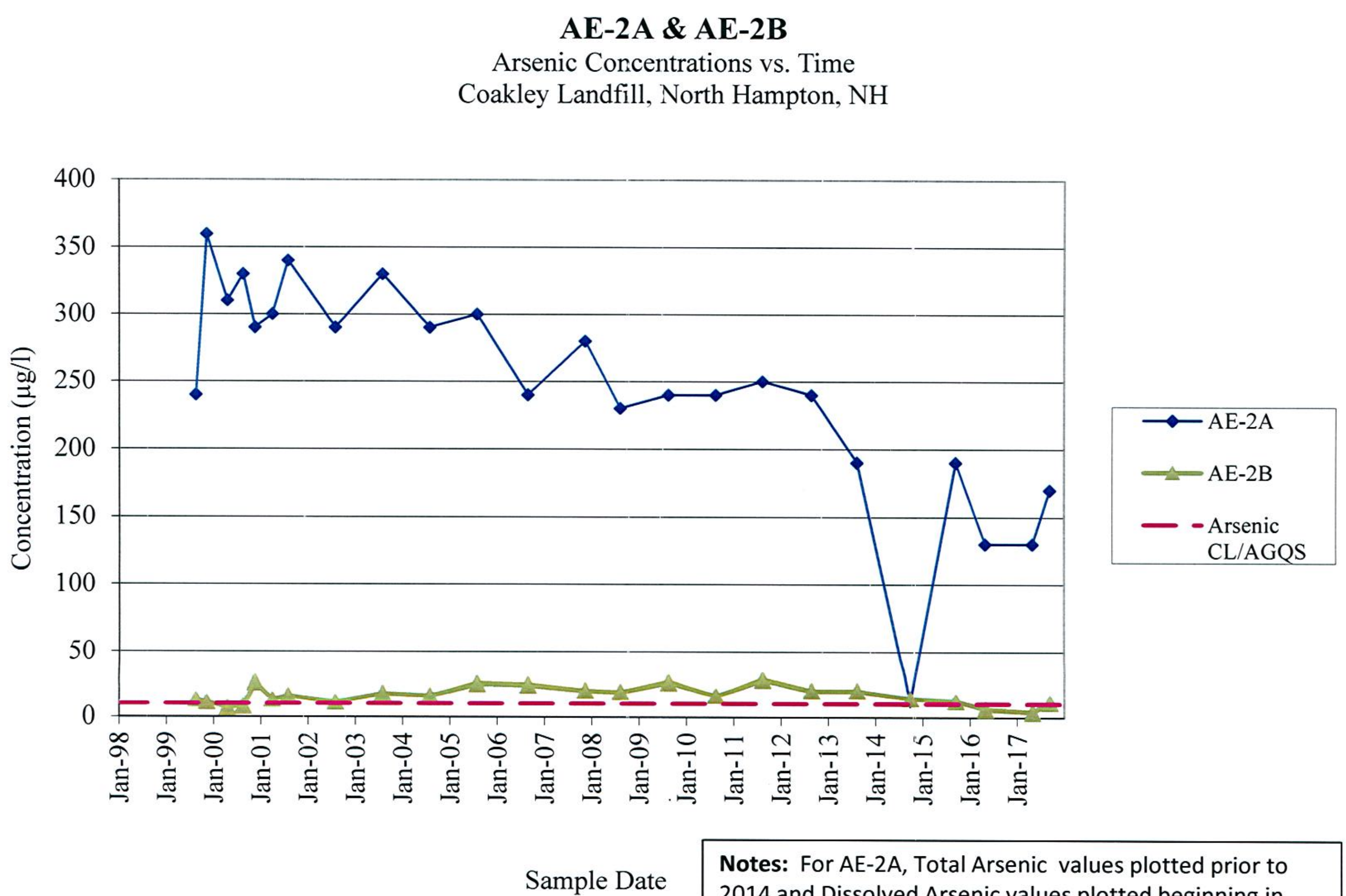
1,4-DIOXANE SUMMARY PLOTS

TERTIARY-BUTYL ALCOHOL SUMMARY PLOT

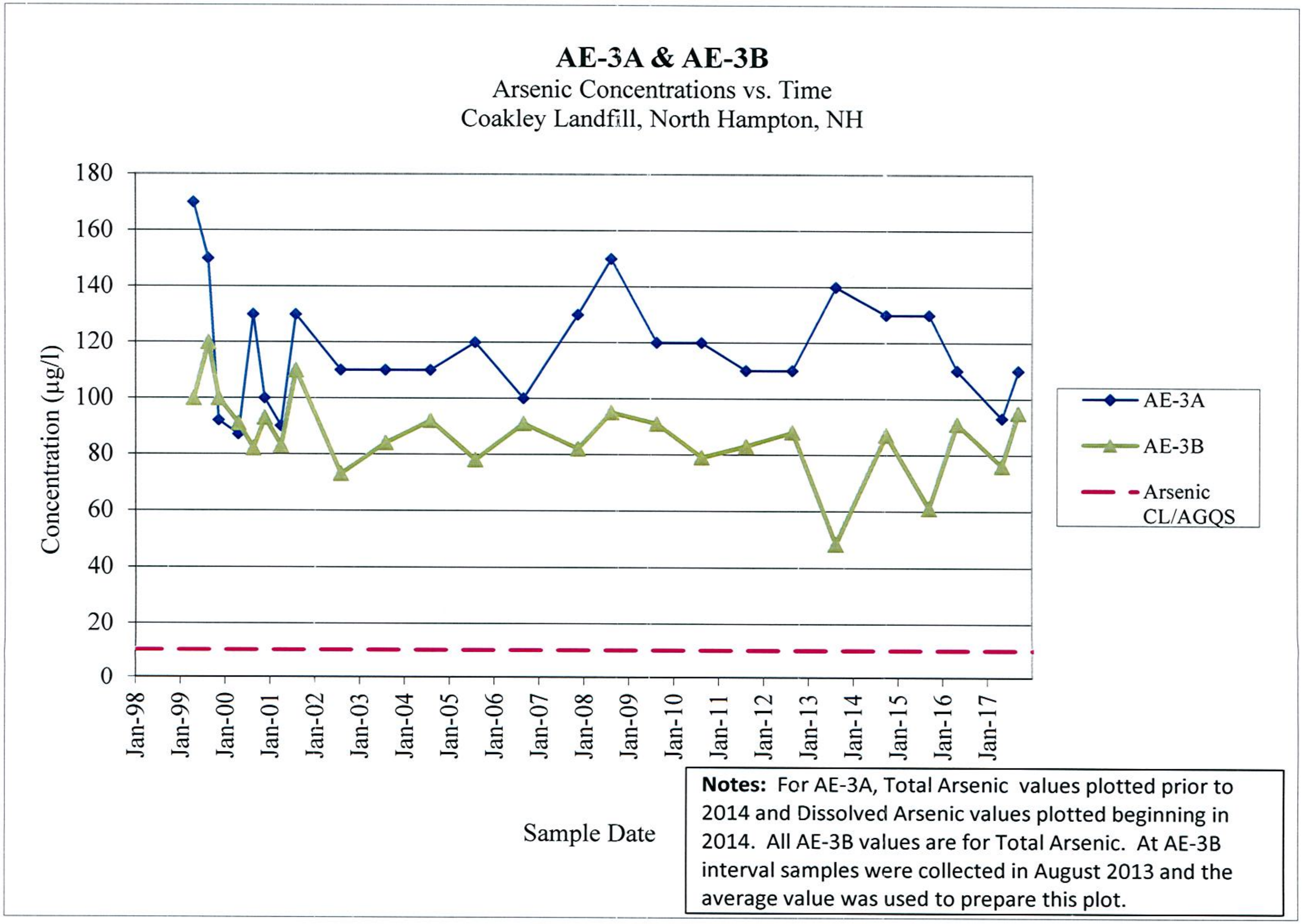
ARSENIC, MANGANESE AND BENZENE PLOTS AT SELECT WELLS



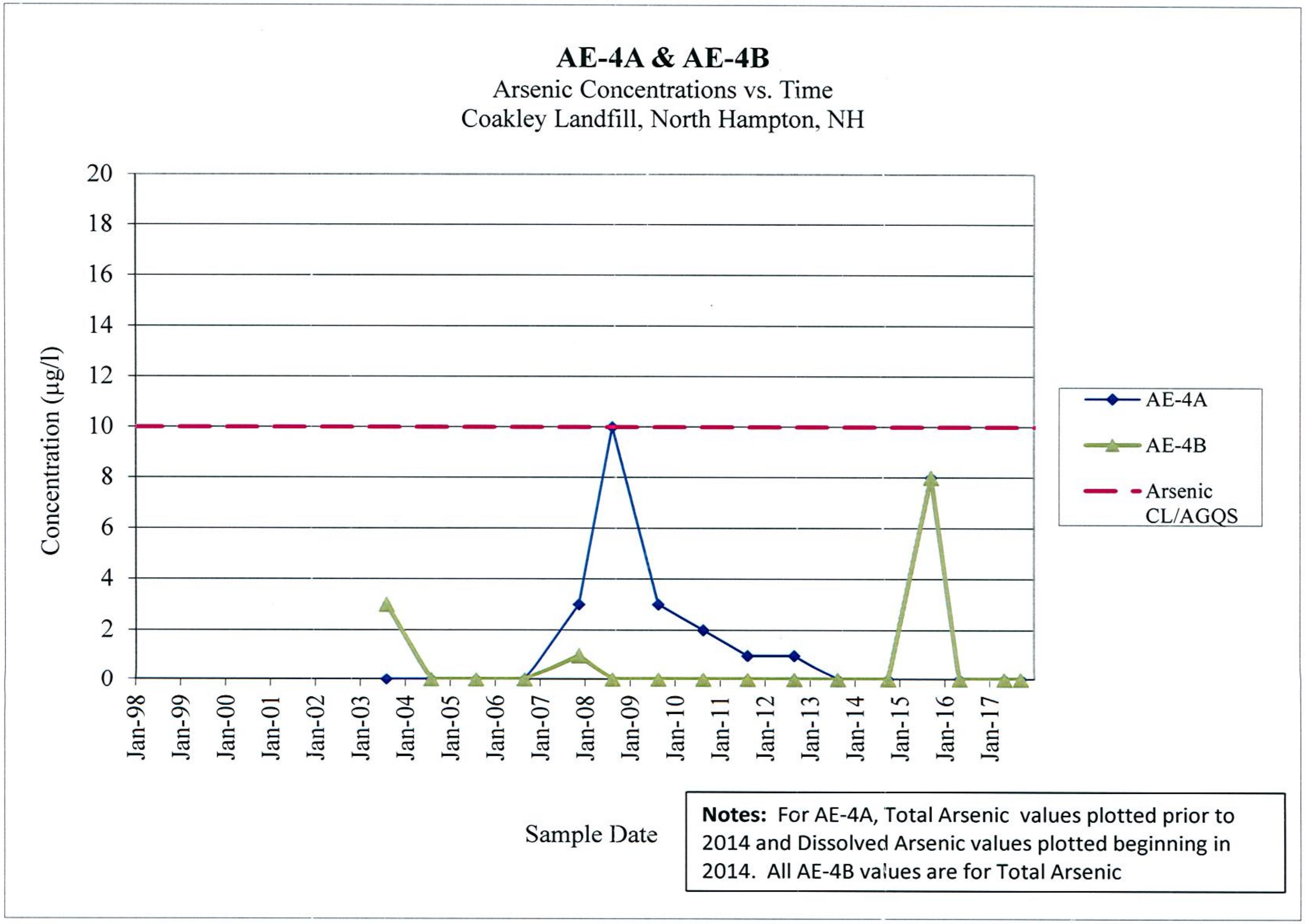
Notes: For AE-1A, Total Arsenic values plotted prior to 2014 and Dissolved Arsenic values plotted beginning in 2014. All AE-1B values are for Total Arsenic



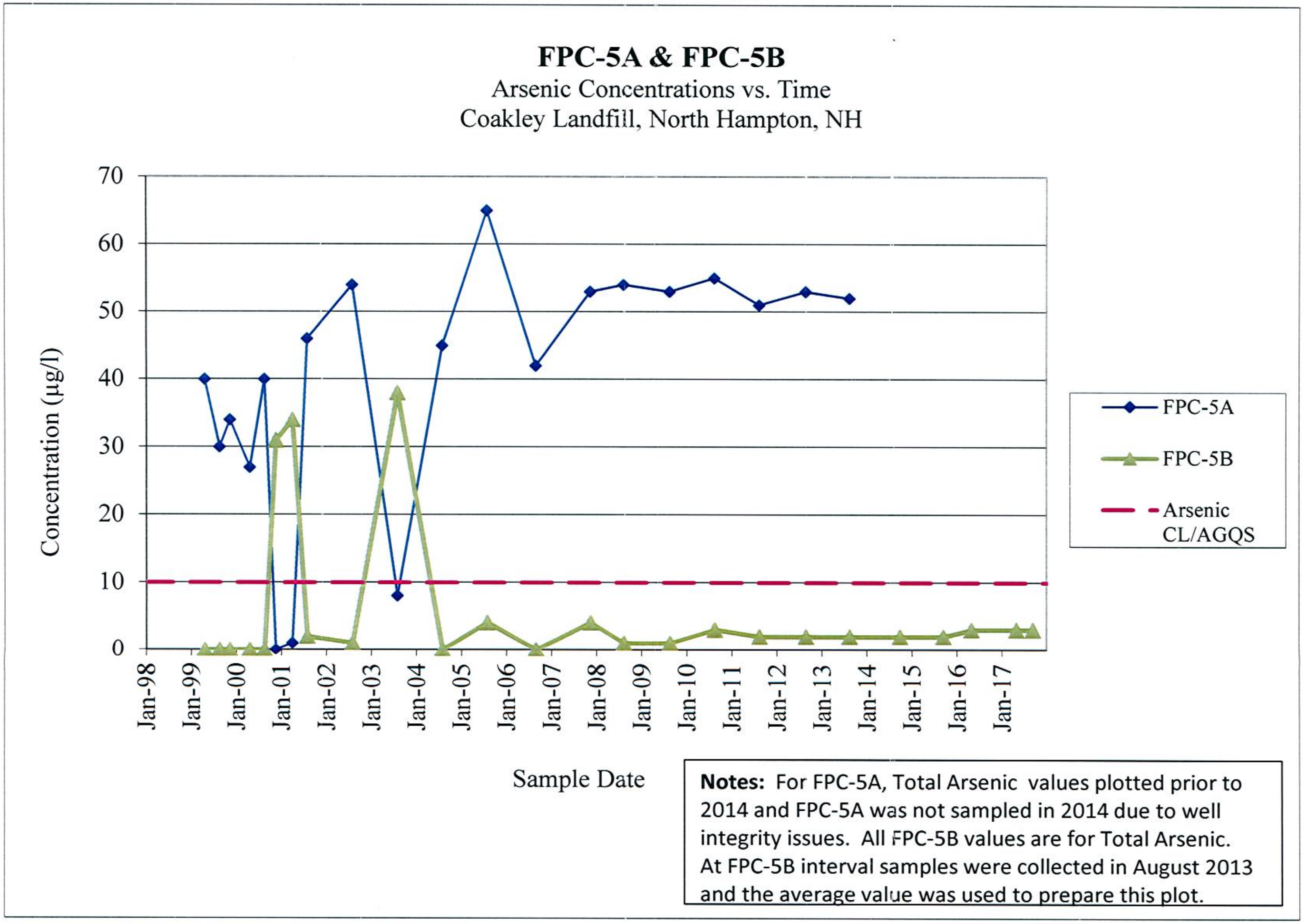
Notes: For AE-2A, Total Arsenic values plotted prior to 2014 and Dissolved Arsenic values plotted beginning in 2014. All AE-2B values are for Total Arsenic

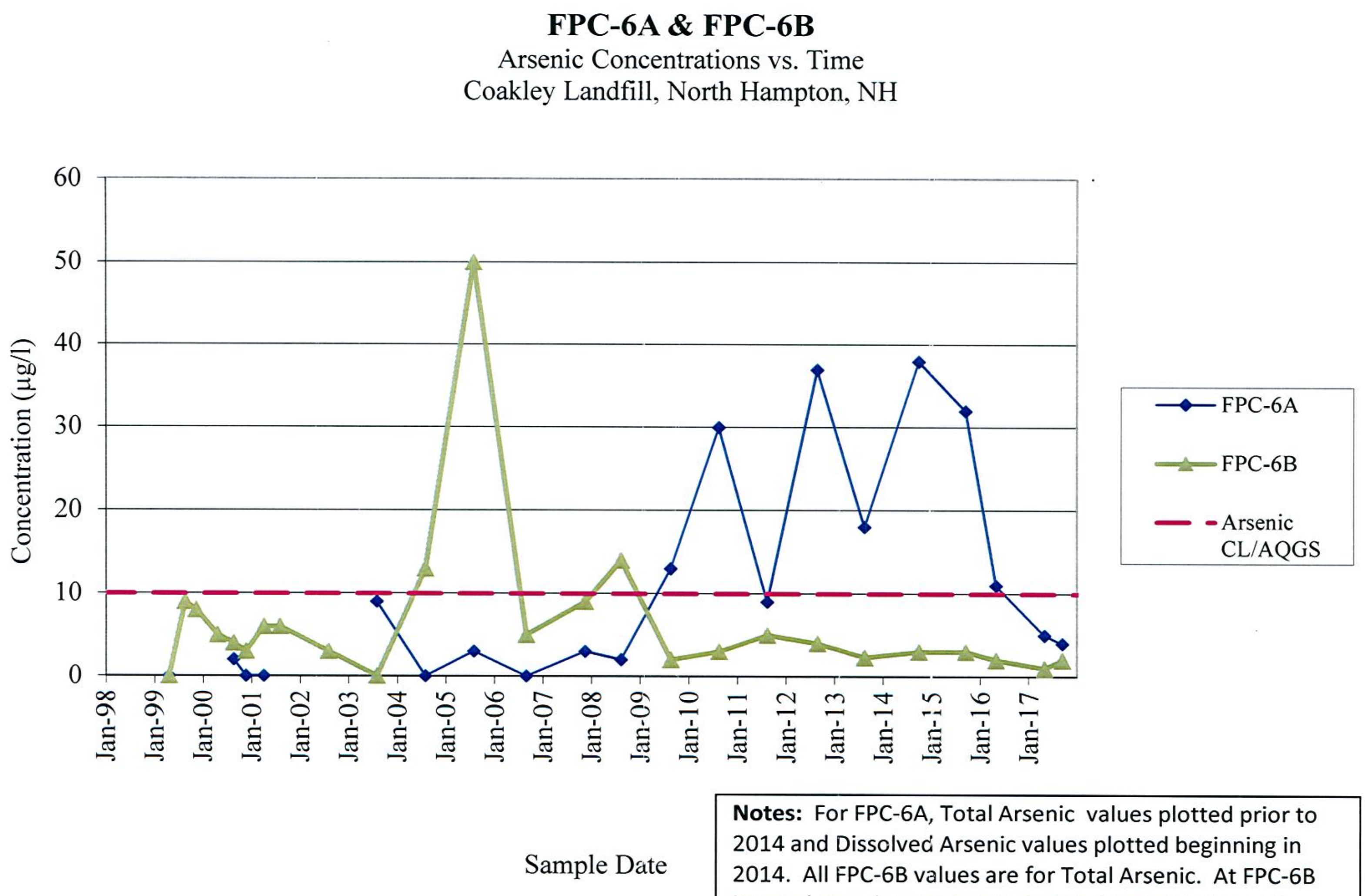


Notes: For AE-3A, Total Arsenic values plotted prior to 2014 and Dissolved Arsenic values plotted beginning in 2014. All AE-3B values are for Total Arsenic. At AE-3B interval samples were collected in August 2013 and the average value was used to prepare this plot.

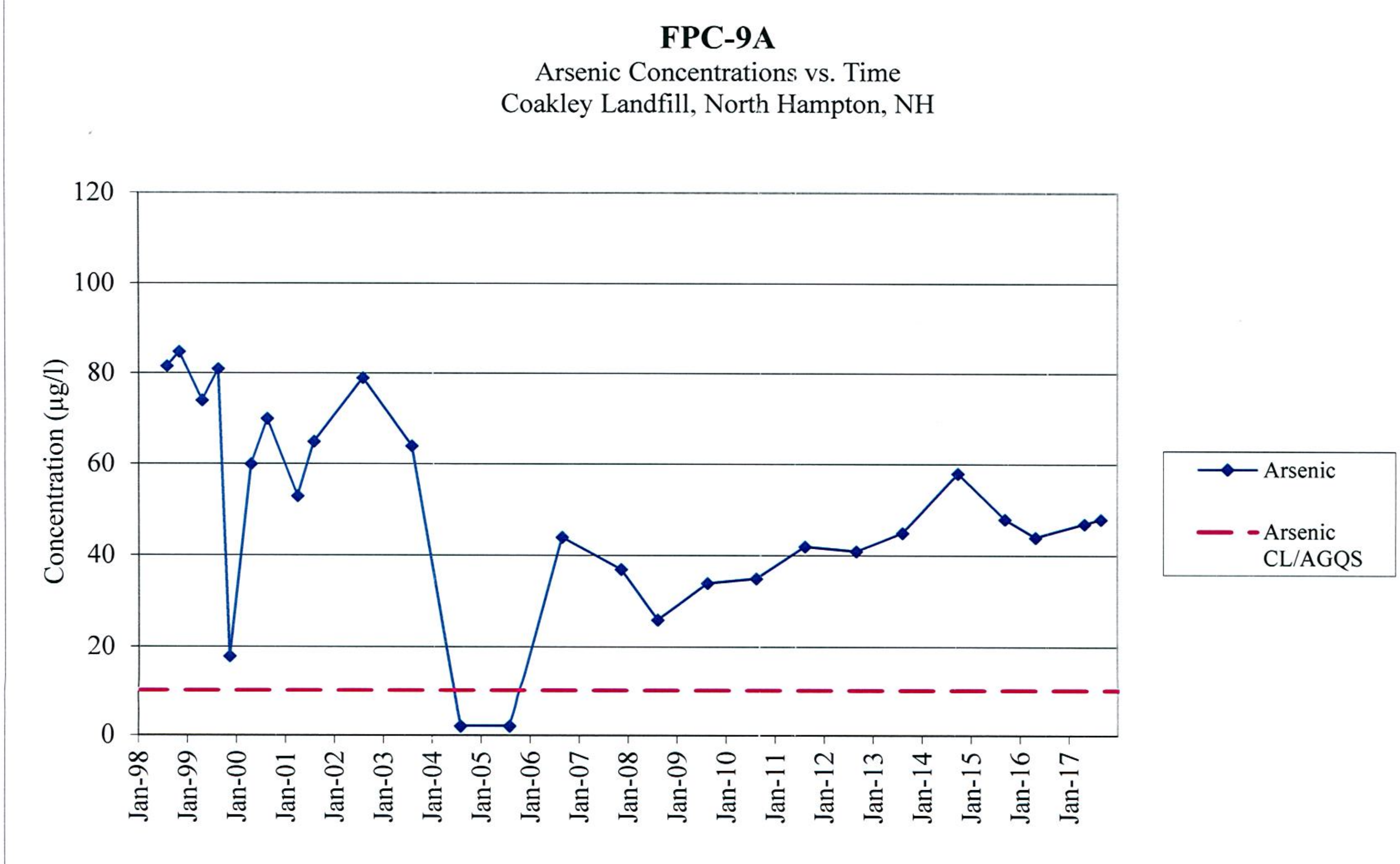


AE-4A & AE-4B
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
0
2
4
6
8
10
12
14
16
18
20
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
AE-4A
AE-4B
Arsenic CL/AGQS
Notes: For AE-4A, Total Arsenic values plotted prior to 2014 and Dissolved Arsenic values plotted beginning in 2014. All AE-4B values are for Total Arsenic

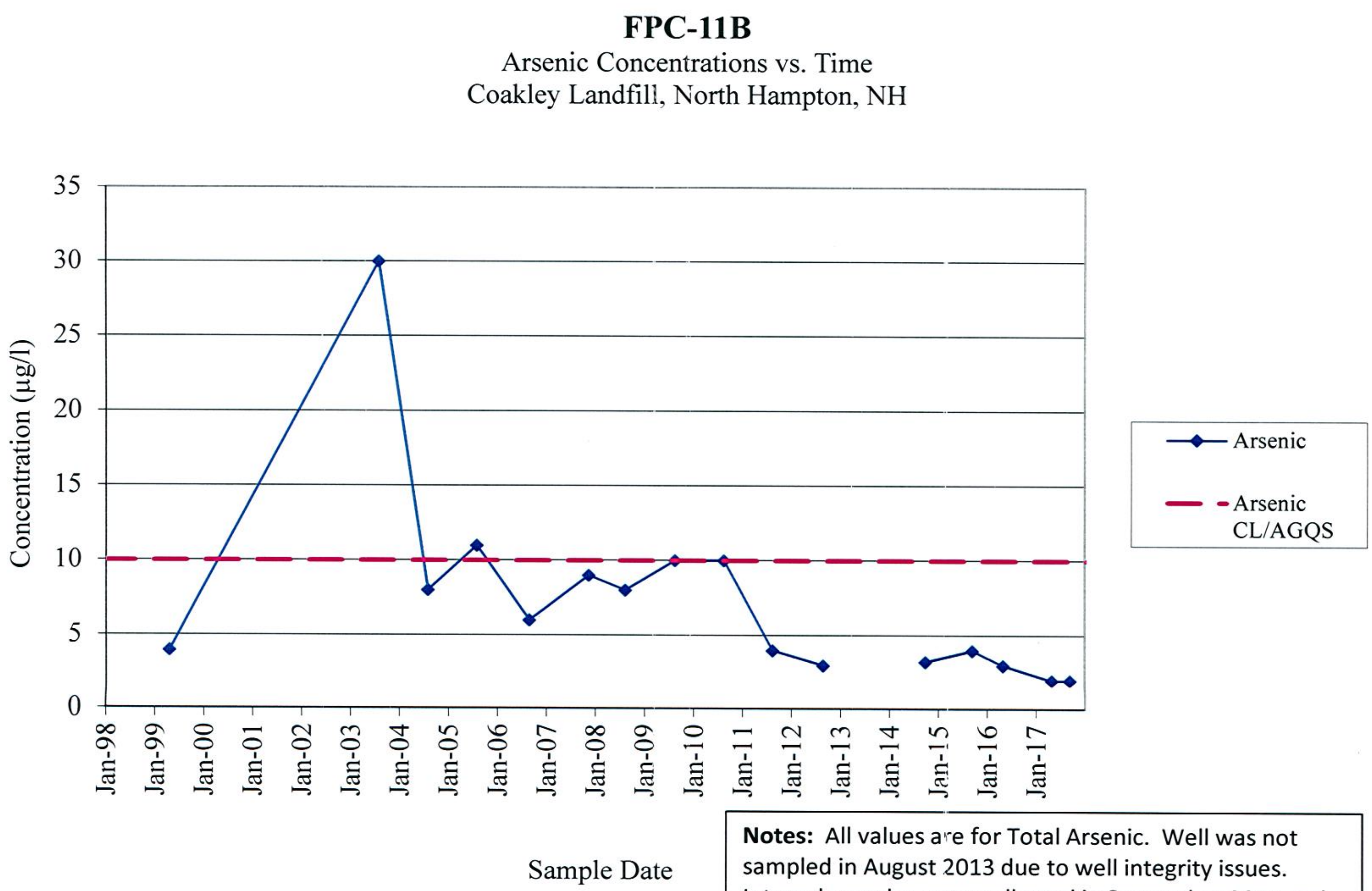

FPC-5A & FPC-5B
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
0
10
20
30
40
50
60
70
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
FPC-5A
FPC-5B
Arsenic CL/AGQS
Notes: For FPC-5A, Total Arsenic values plotted prior to 2014 and FPC-5A was not sampled in 2014 due to well integrity issues. All FPC-5B values are for Total Arsenic. At FPC-5B interval samples were collected in August 2013 and the average value was used to prepare this plot.



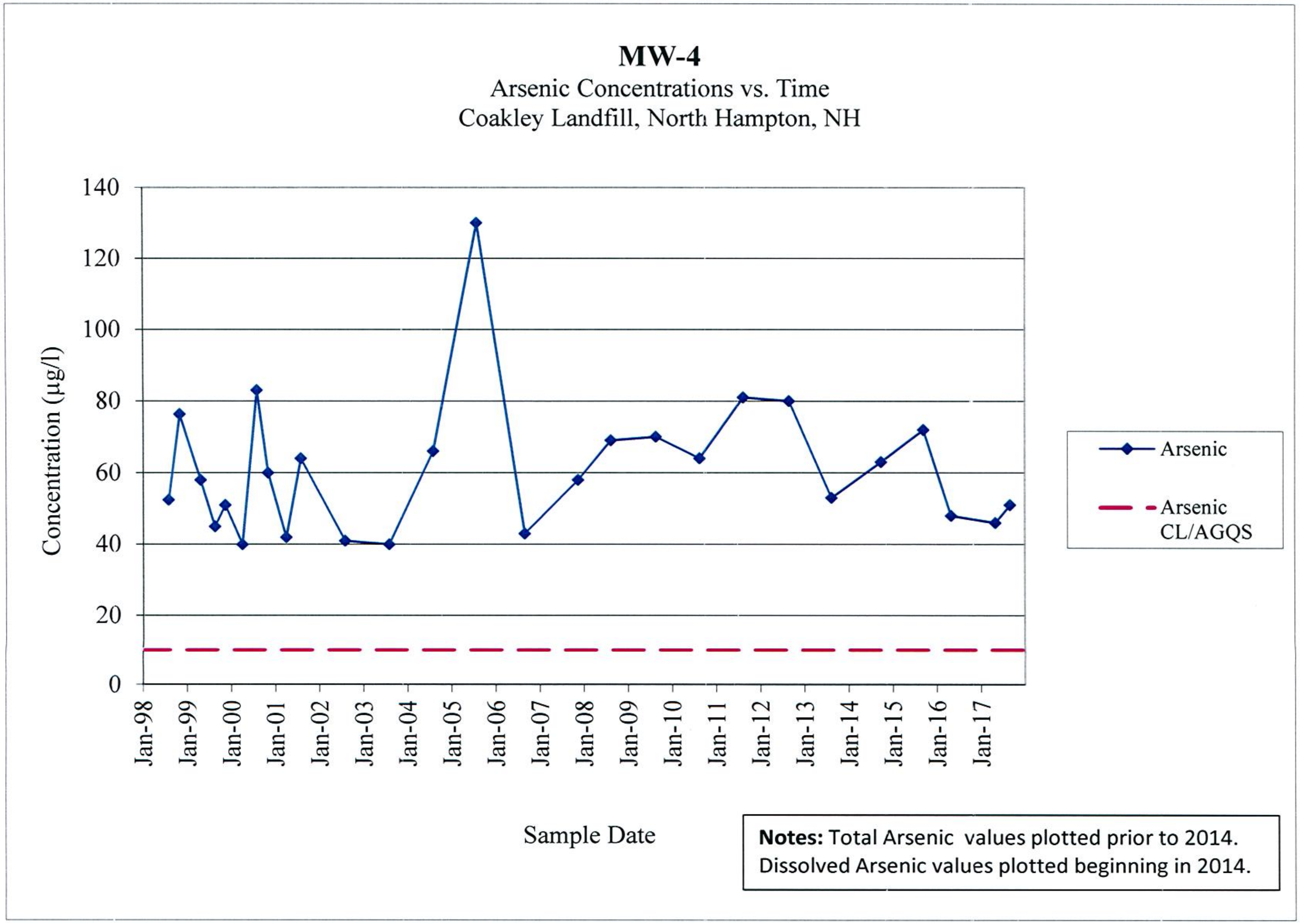
Notes: For FPC-6A, Total Arsenic values plotted prior to 2014 and Dissolved Arsenic values plotted beginning in 2014. All FPC-6B values are for Total Arsenic. At FPC-6B interval samples were collected in August 2013 and the average value was used to prepare this plot.



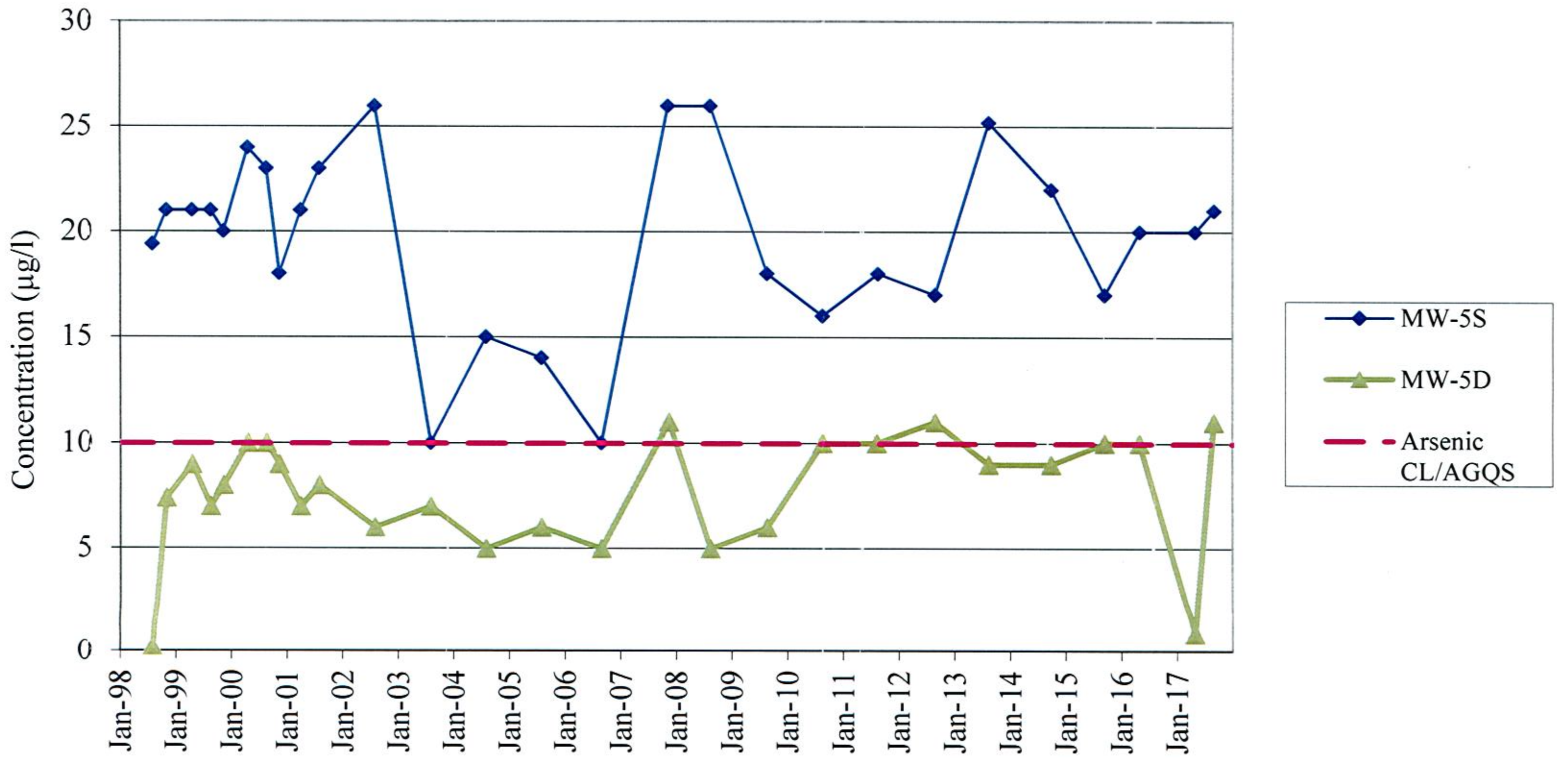
Notes: Total Arsenic values plotted prior to 2014. Dissolved Arsenic values plotted beginning in 2014.



Notes: All values are for Total Arsenic. Well was not sampled in August 2013 due to well integrity issues. Interval samples were collected in September 2014 and the average value was used to prepare this plot.

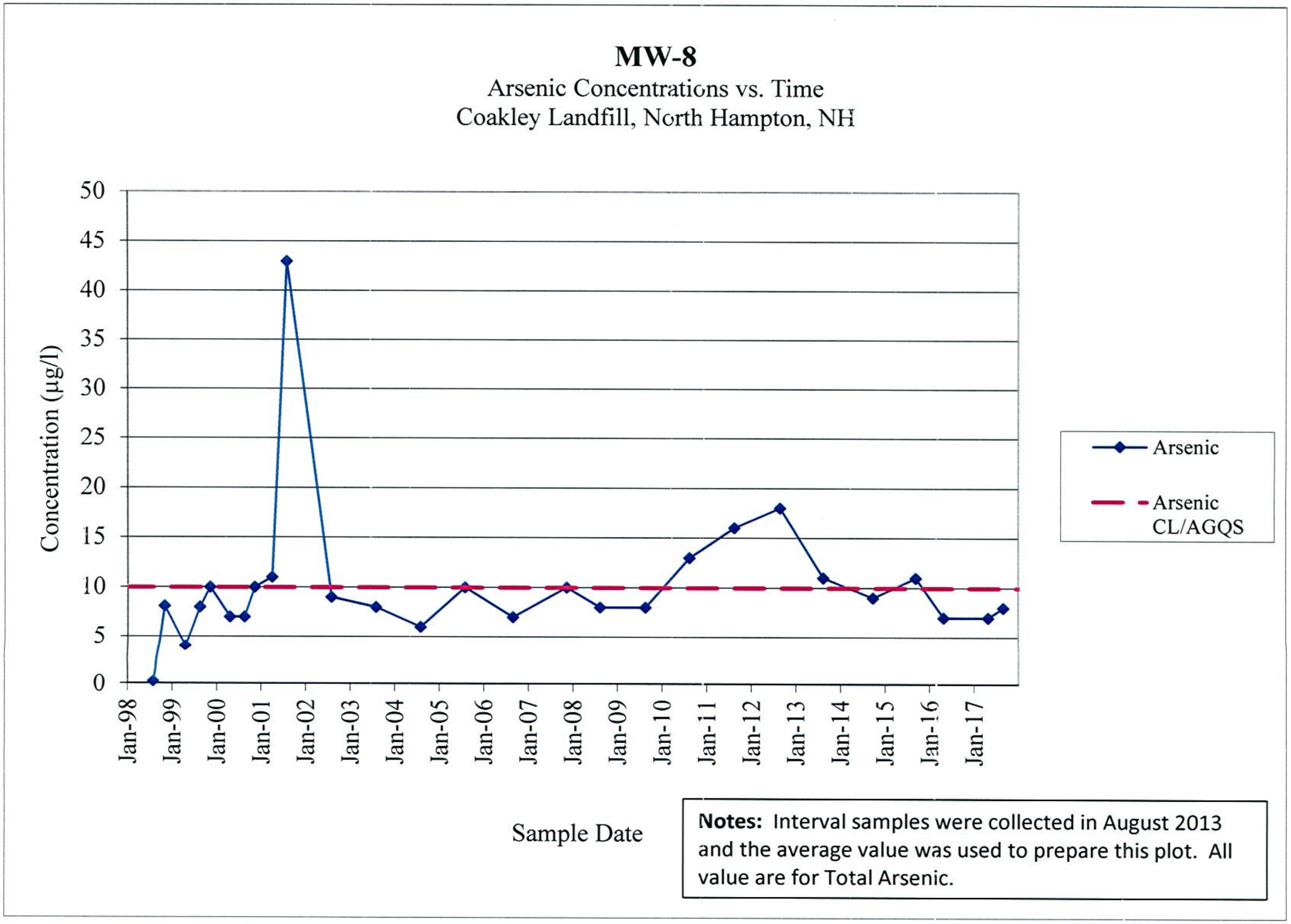

MW-4
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
140
120
100
80
60
40
20
0
Concentration (µg/l)
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Arsenic
Arsenic CL/AGQS
Notes: Total Arsenic values plotted prior to 2014.
Dissolved Arsenic values plotted beginning in 2014.

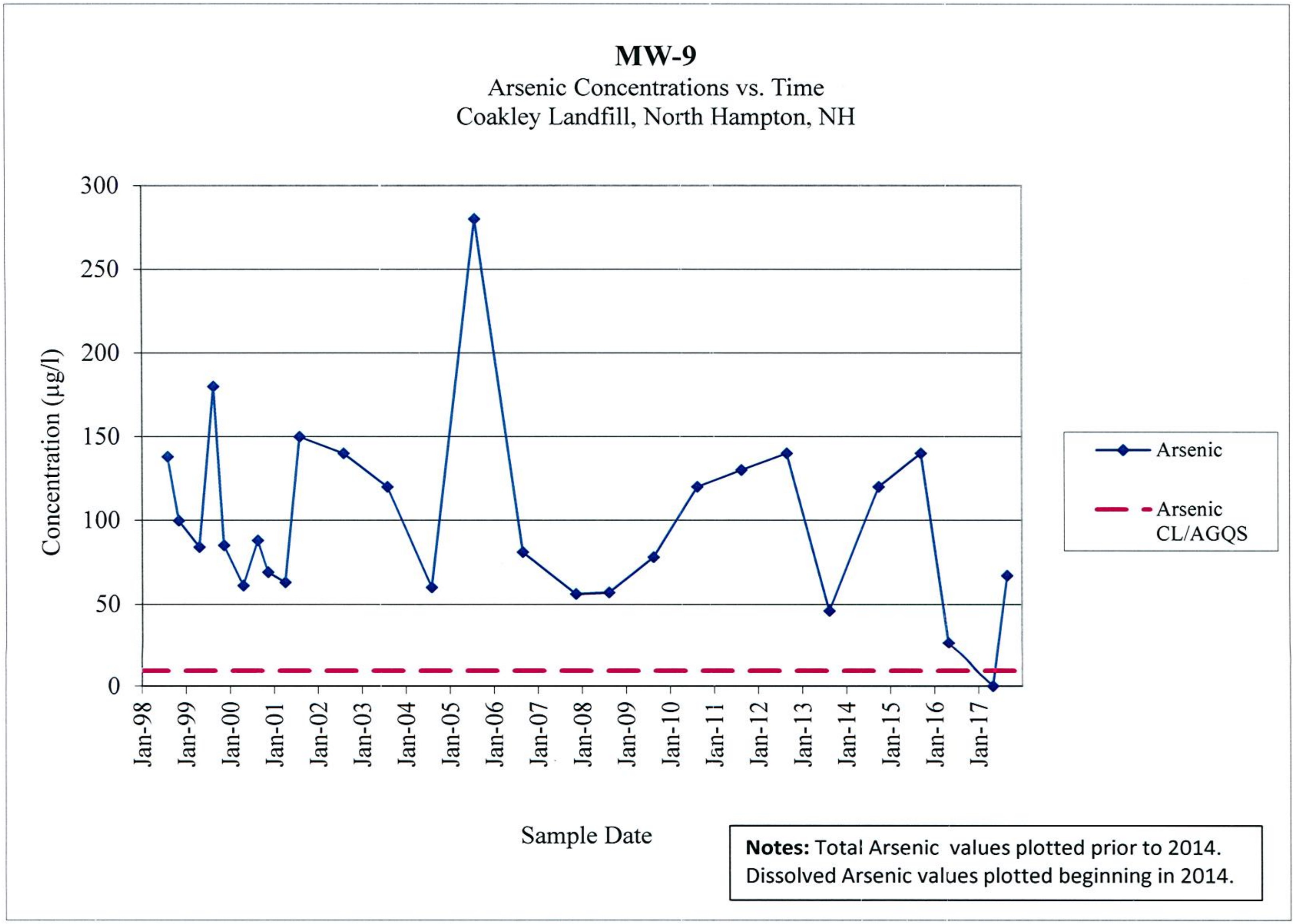
MW-5S & MW-5D
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH

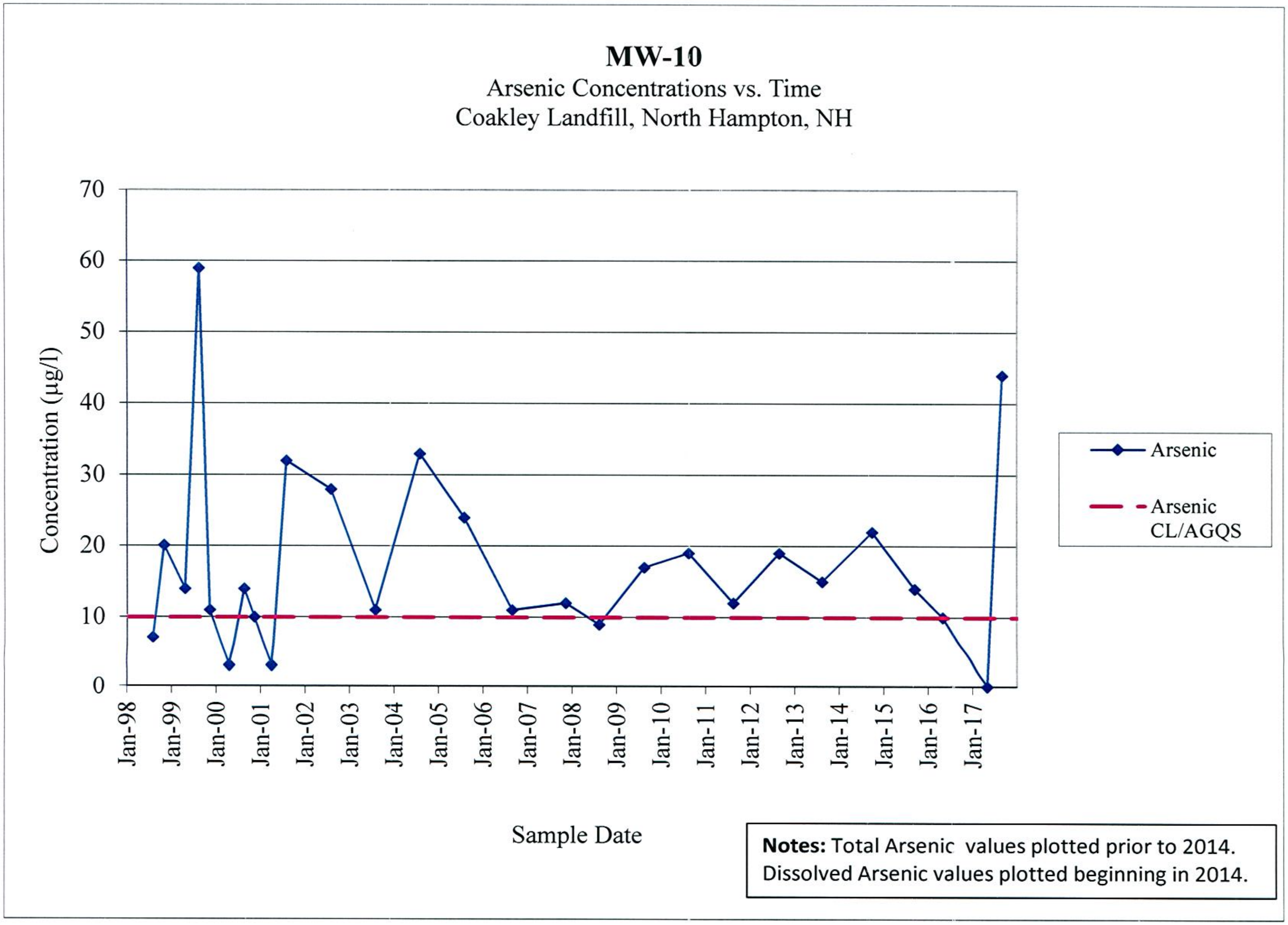


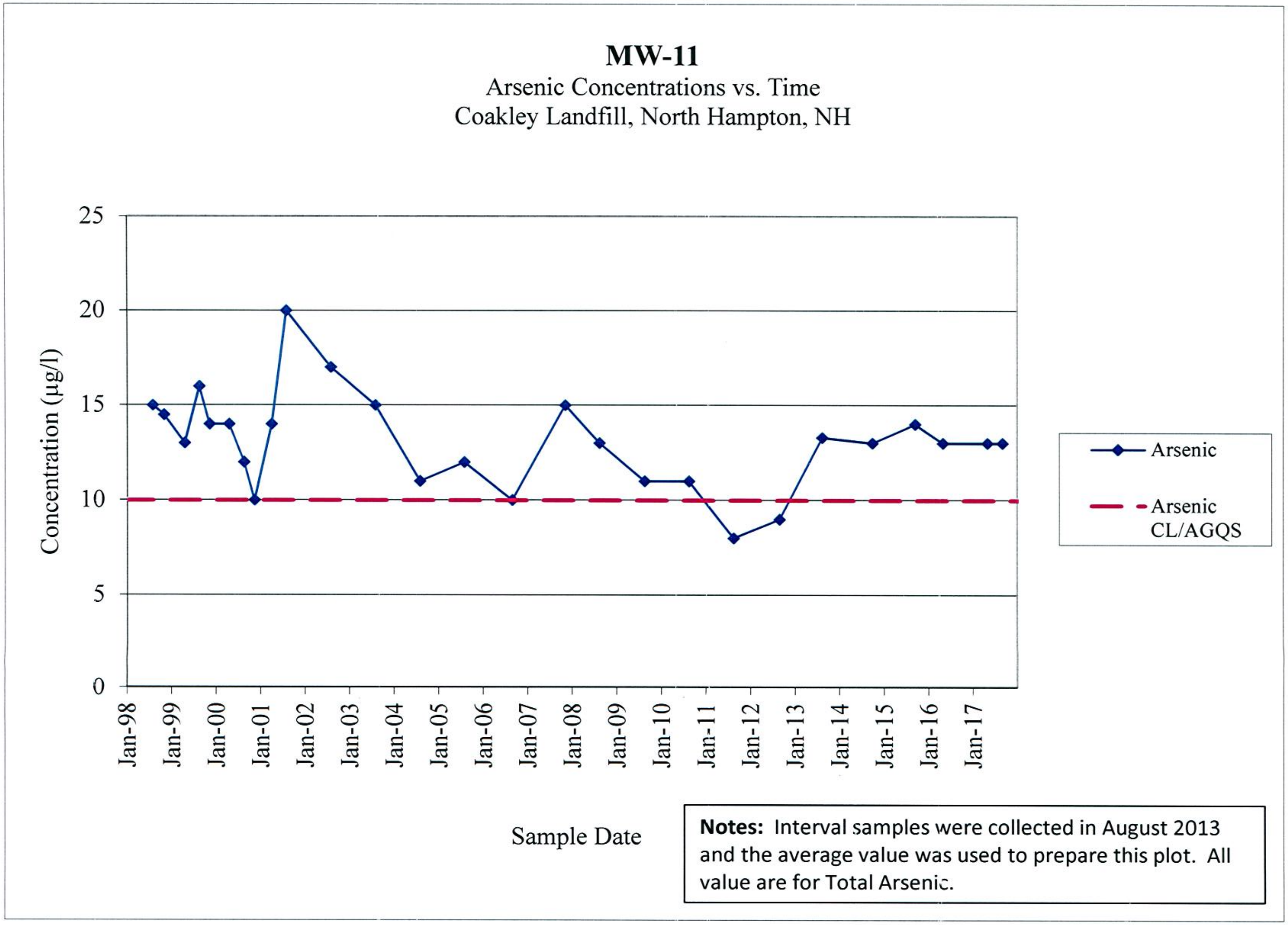
Sample Date

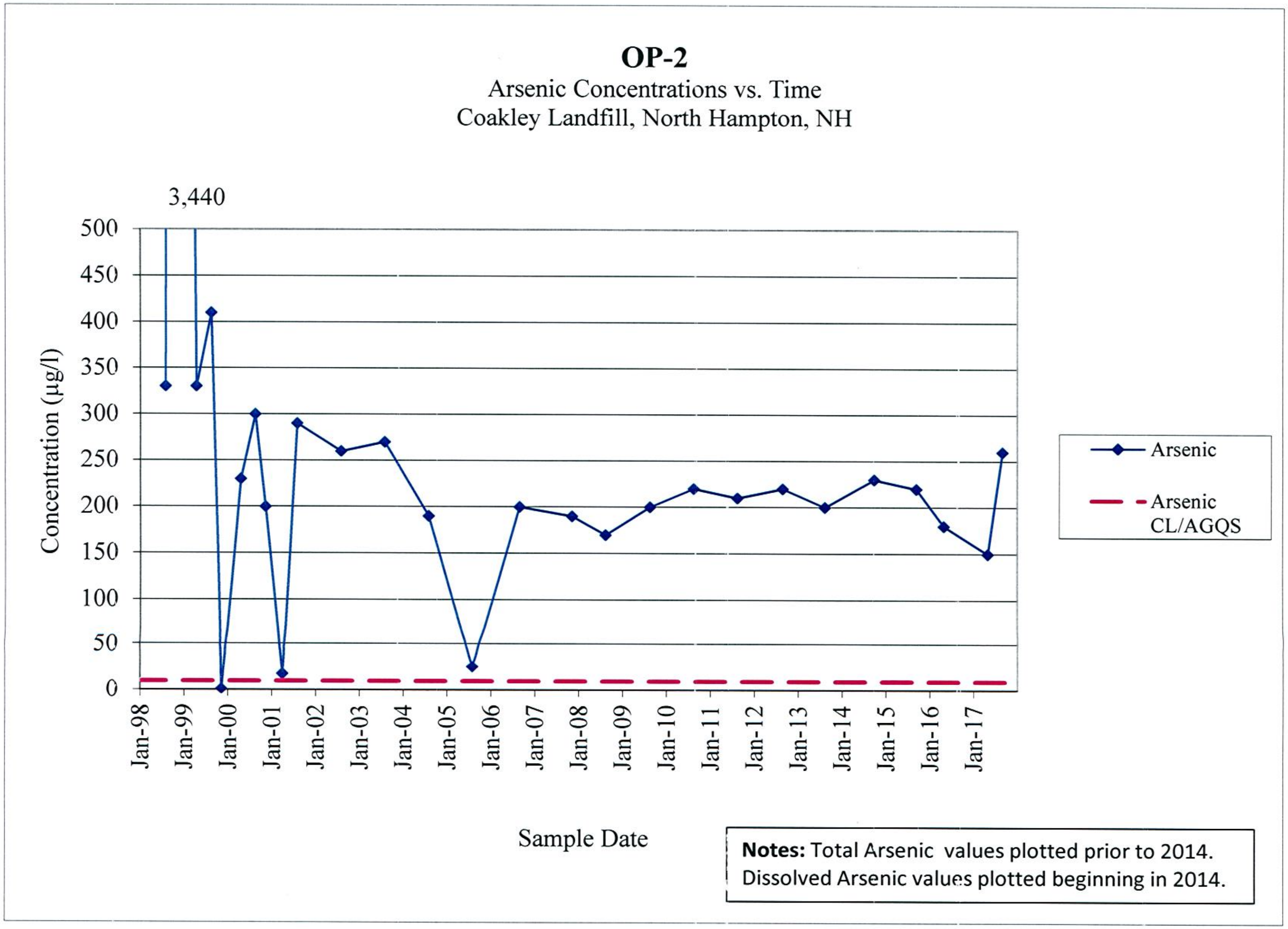
Notes: Interval samples were collected in August 2013 and the average value was used to prepare this plot. All value are for Total Arsenic.

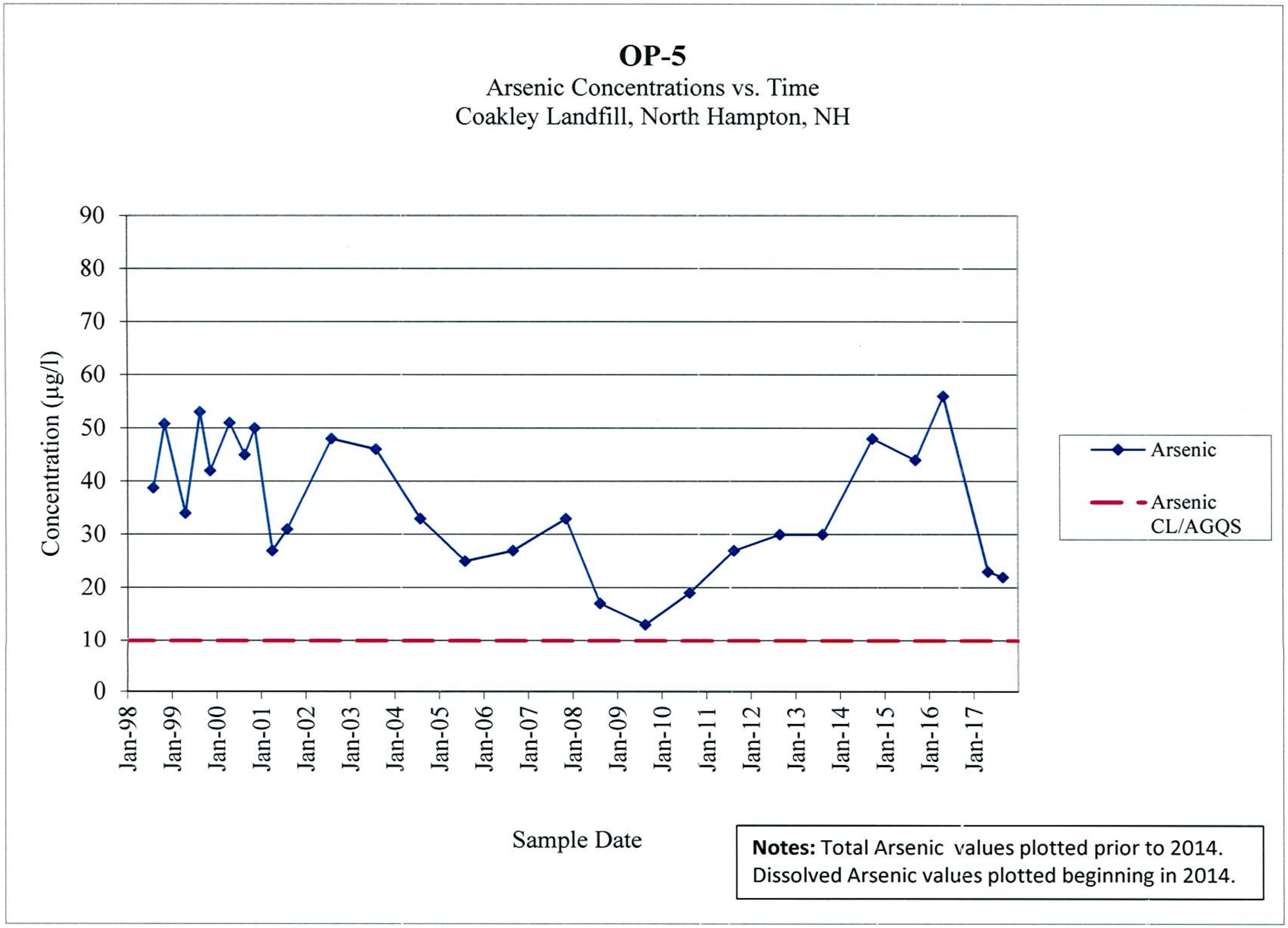

MW-8
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
0
5
10
15
20
25
30
35
40
45
50
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Arsenic
Arsenic CL/AGQS
Notes: Interval samples were collected in August 2013 and the average value was used to prepare this plot. All value are for Total Arsenic.


MW-9
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
300
250
200
150
100
50
0
Concentration (µg/l)
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Arsenic
Arsenic CL/AGQS
Notes: Total Arsenic values plotted prior to 2014. Dissolved Arsenic values plotted beginning in 2014.

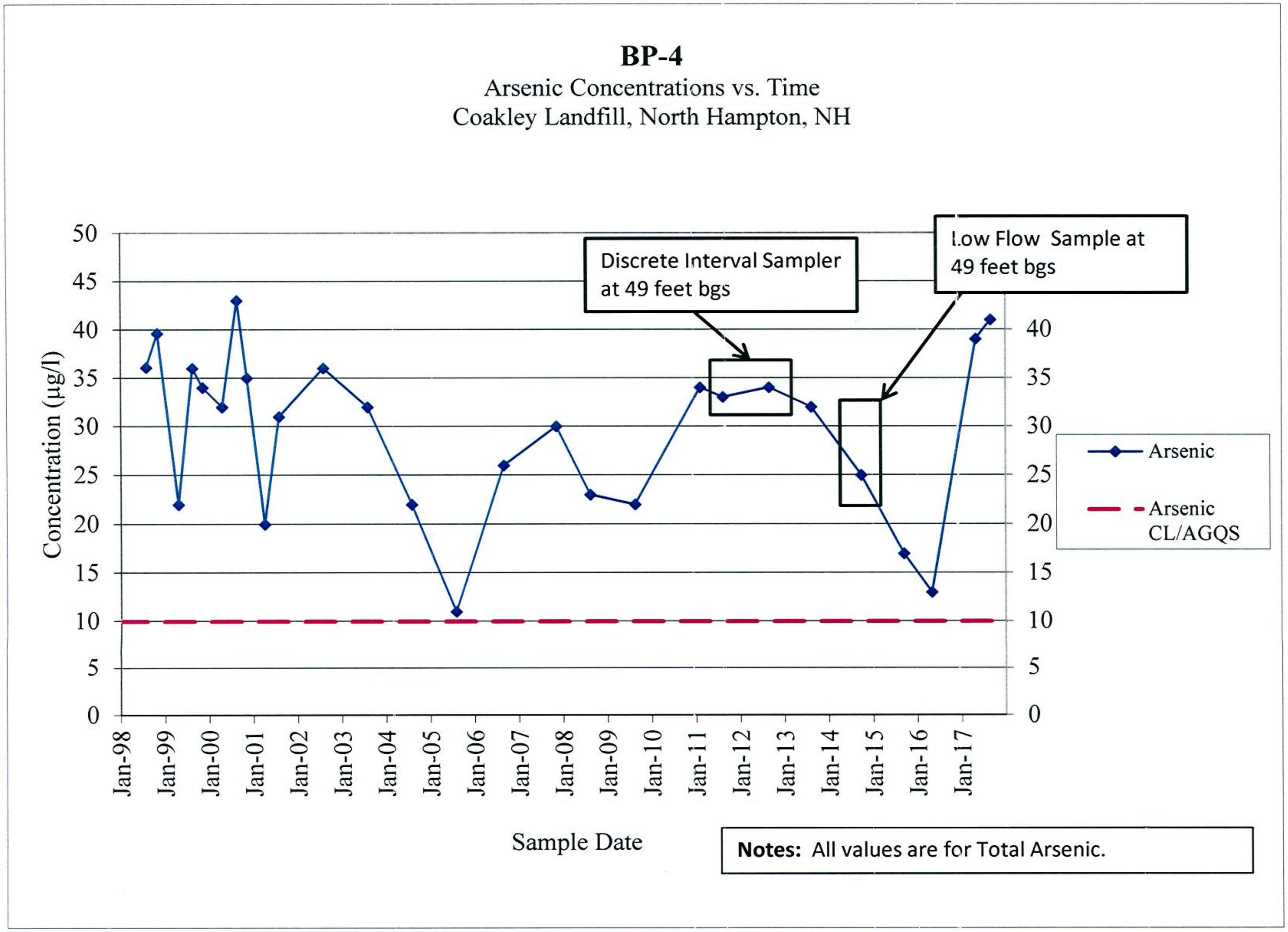

MW-10
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
70
60
50
40
30
20
10
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Arsenic
Arsenic CL/AGQS
Notes: Total Arsenic values plotted prior to 2014.
Dissolved Arsenic values plotted beginning in 2014.

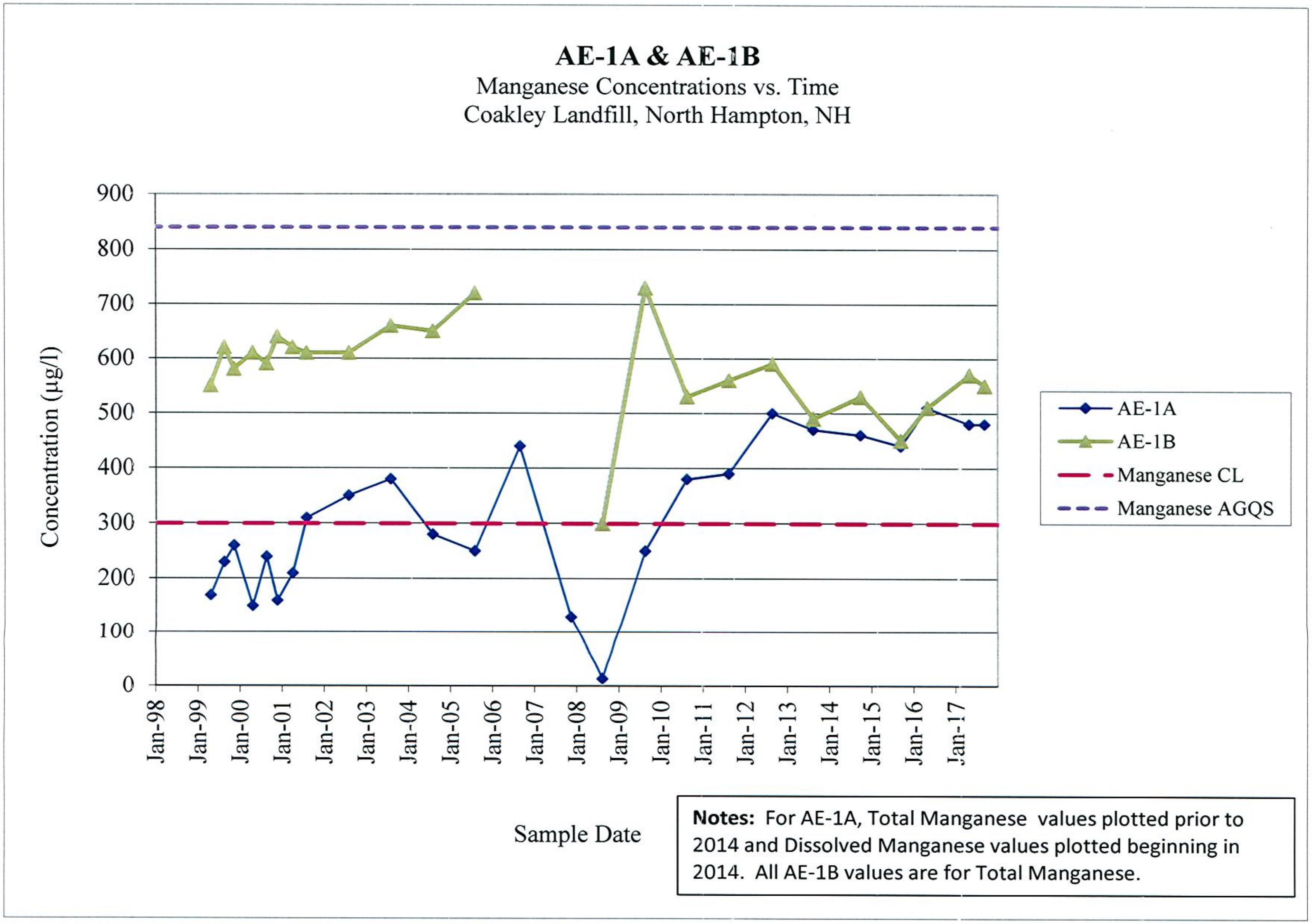

MW-11
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
25
20
15
10
5
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Arsenic
Arsenic CL/AGQS
Notes: Interval samples were collected in August 2013 and the average value was used to prepare this plot. All value are for Total Arsenic.


OP-2
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
3,440
500
450
400
350
300
250
200
150
100
50
0
Concentration (µg/l)
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Arsenic
Arsenic CL/AGQS
Notes: Total Arsenic values plotted prior to 2014. Dissolved Arsenic values plotted beginning in 2014.

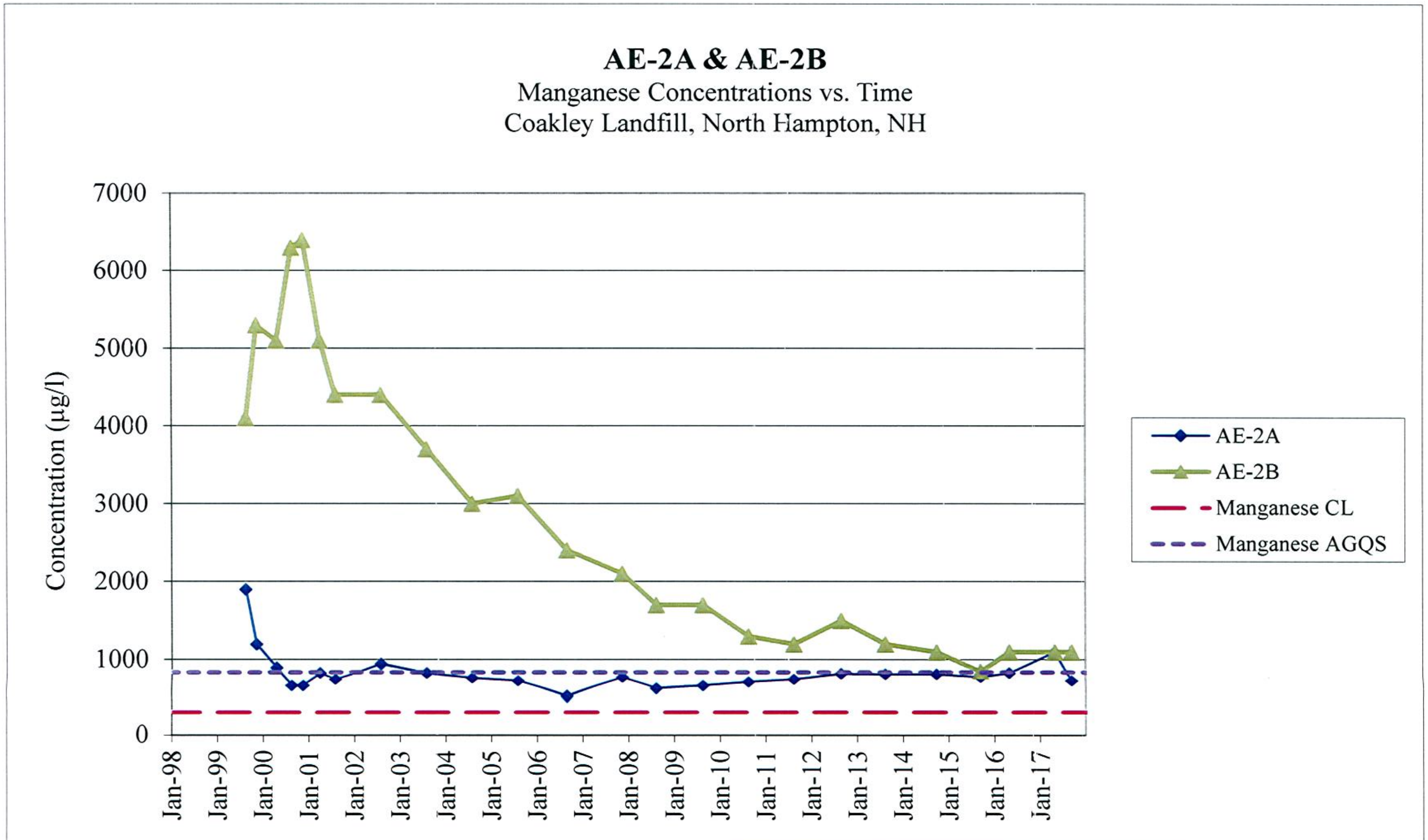


OP-5
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
90
80
70
60
50
40
30
20
10
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Arsenic
Arsenic CL/AGQS
Notes: Total Arsenic values plotted prior to 2014. Dissolved Arsenic values plotted beginning in 2014.

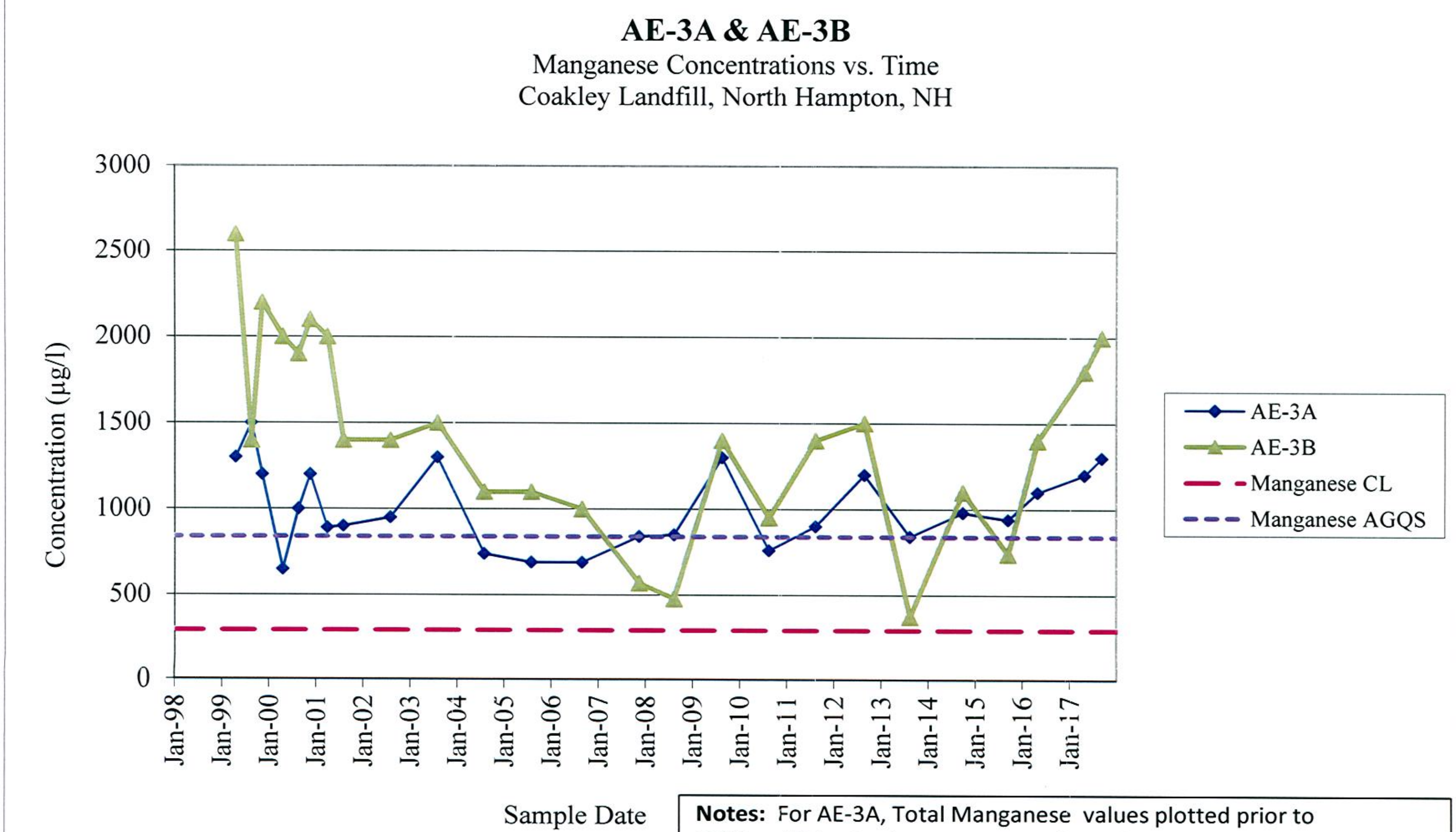

BP-4
Arsenic Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
50
45
40
35
30
25
20
15
10
5
0
Discrete Interval Sampler at 49 feet bgs
Low Flow Sample at 49 feet bgs
Arsenic
Arsenic CL/AGQS
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Notes: All values are for Total Arsenic.



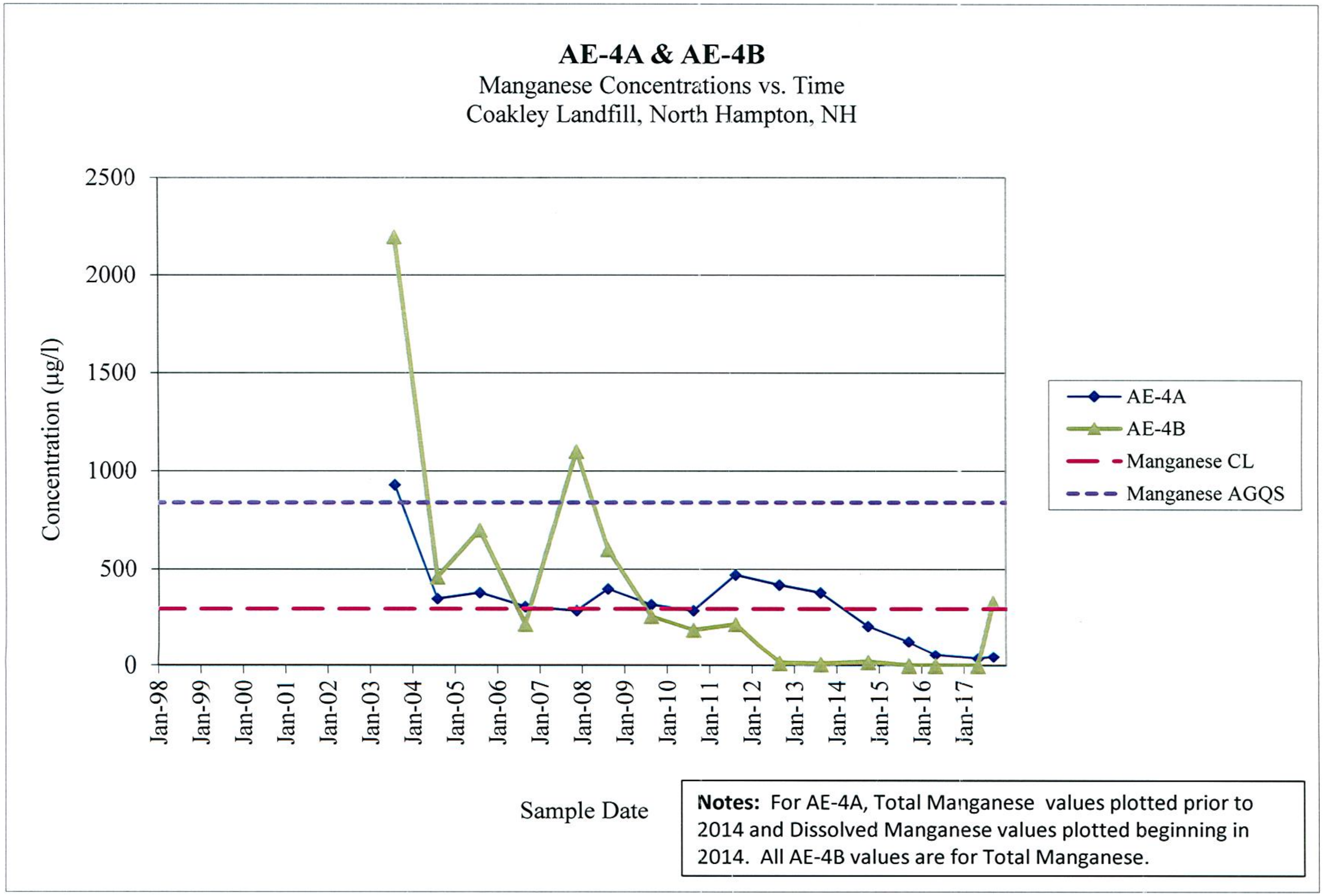
Notes: For AE-1A, Total Manganese values plotted prior to 2014 and Dissolved Manganese values plotted beginning in 2014. All AE-1B values are for Total Manganese.



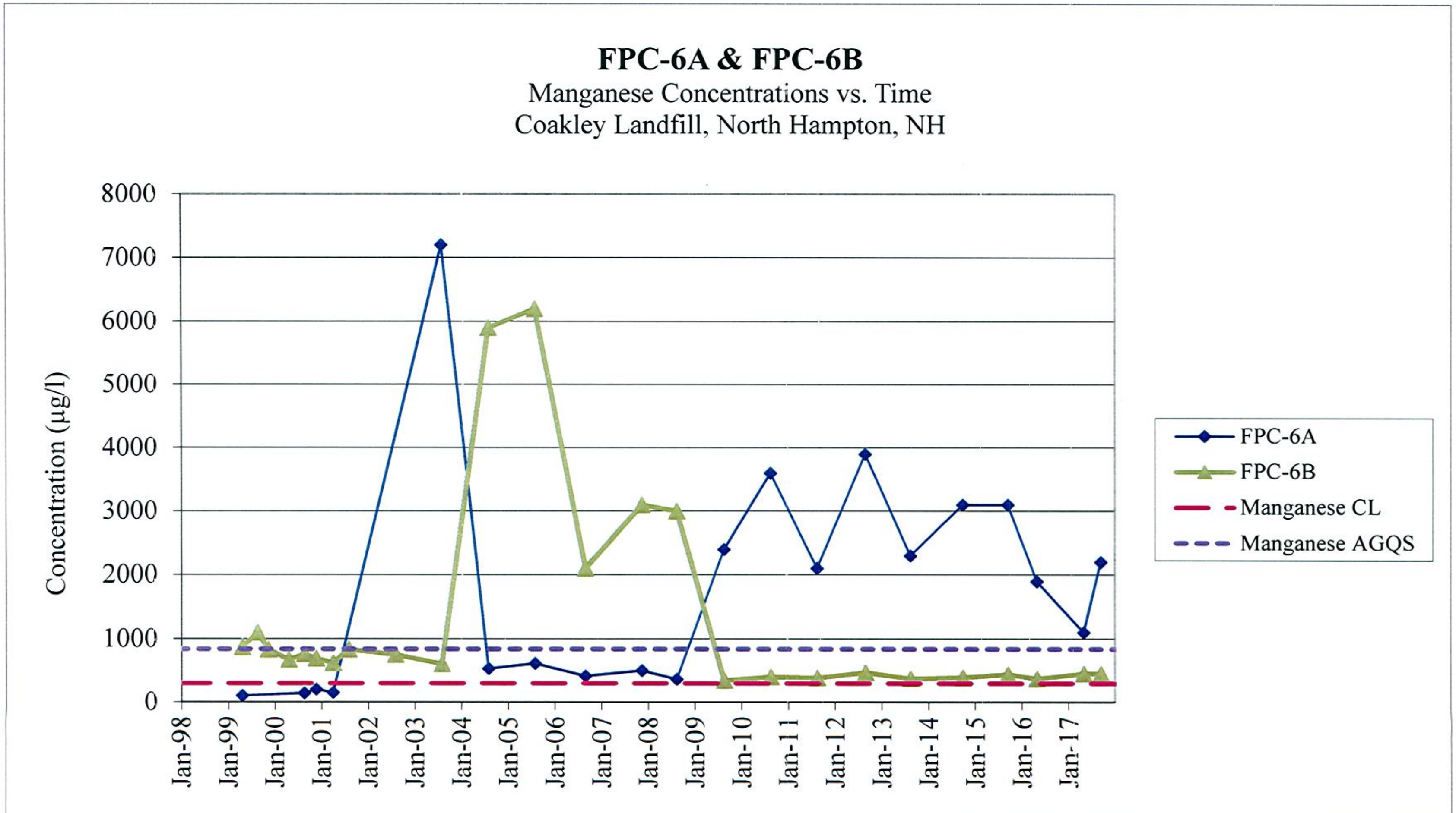
Notes: For AE-2A, Total Manganese values plotted prior to 2014 and Dissolved Manganese values plotted beginning in 2014. All AE-2B values are for Total Manganese.



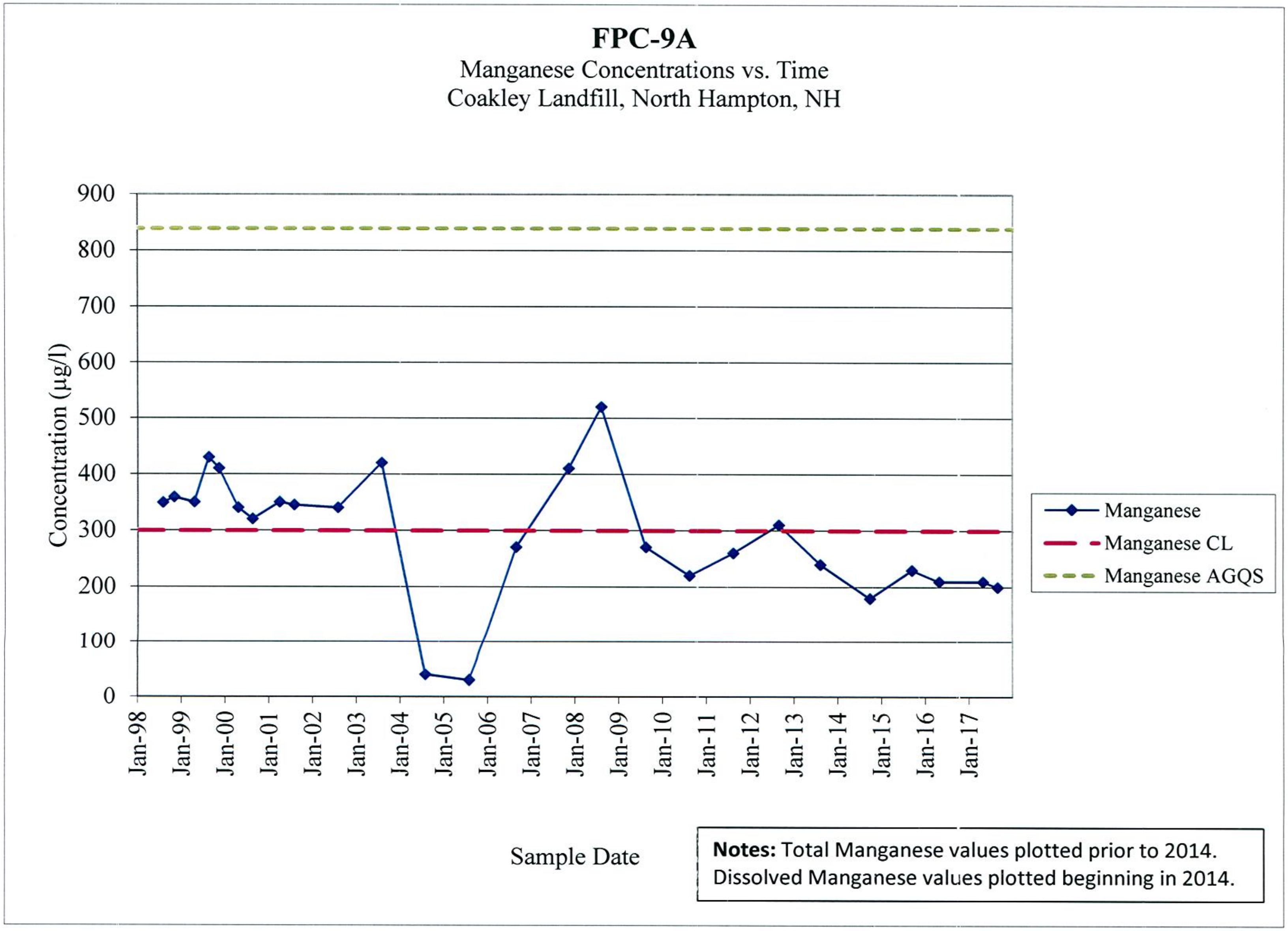
Notes: For AE-3A, Total Manganese values plotted prior to 2014 and Dissolved Manganese values plotted beginning in 2014. All AE-3B values are for Total Manganese. At AE-3B interval samples were collected in August 2013 and the average value was used to prepare this plot.



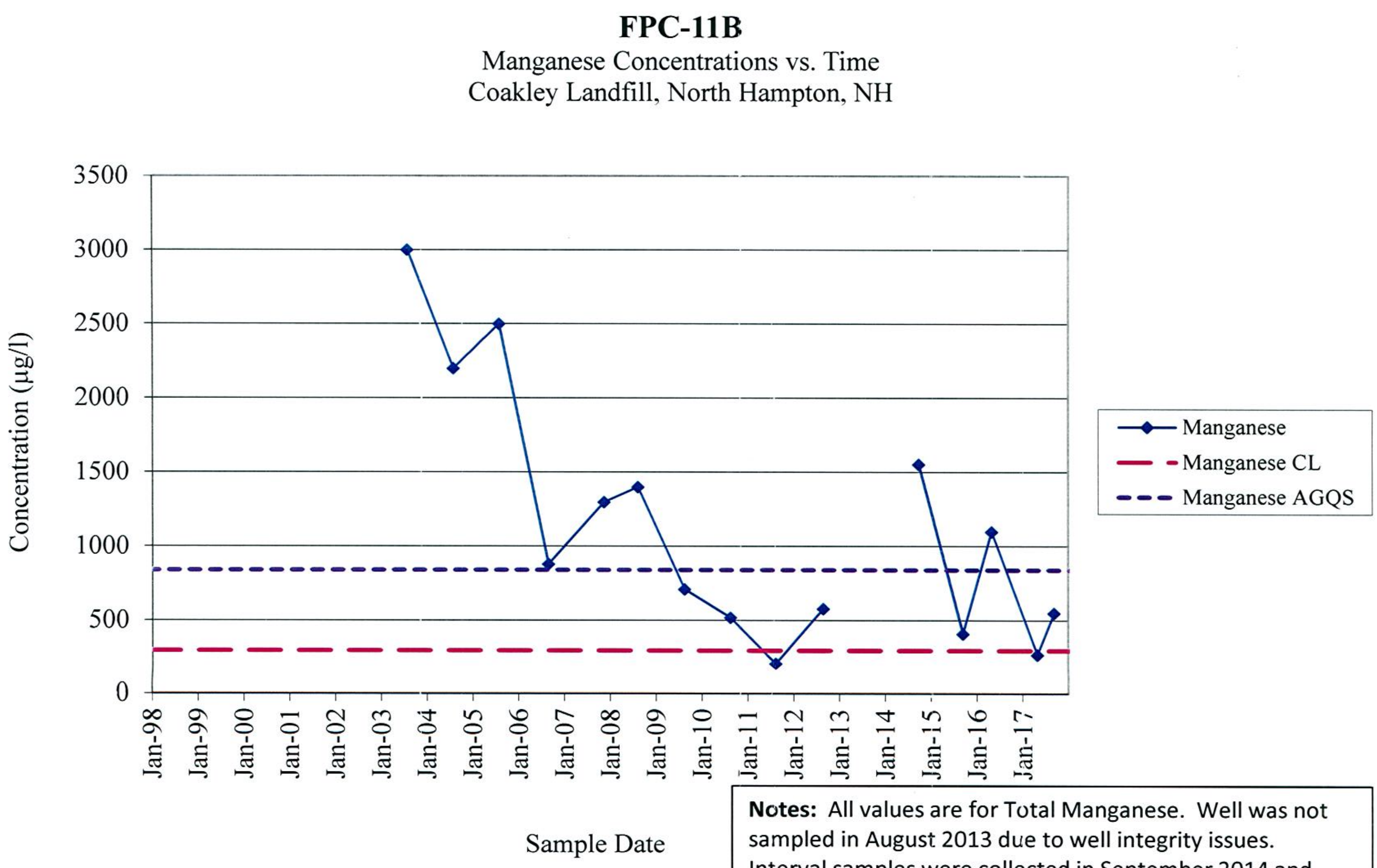
AE-4A & AE-4B
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
2500
2000
1500
1000
500
0
Concentration (µg/l)
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
AE-4A
AE-4B
Manganese CL
Manganese AGQS
Notes: For AE-4A, Total Manganese values plotted prior to 2014 and Dissolved Manganese values plotted beginning in 2014. All AE-4B values are for Total Manganese.



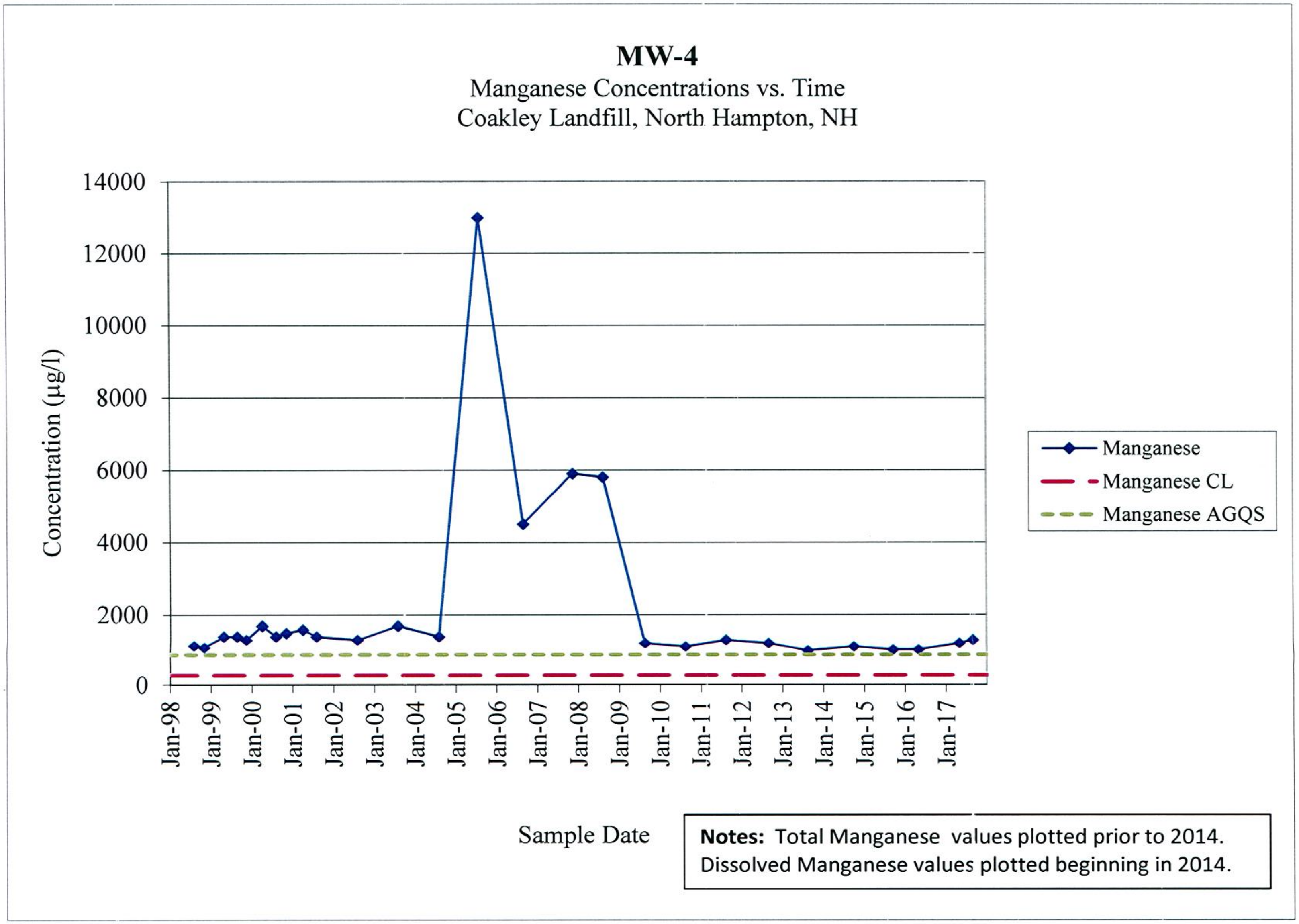
Notes: For FPC-6A, Total Manganese values plotted prior to 2014 and Dissolved Manganese values plotted beginning in 2014. All FPC-6B values are for Total Manganese. At FPC-6B interval samples were collected in August 2013 and the average value was used to prepare this plot.



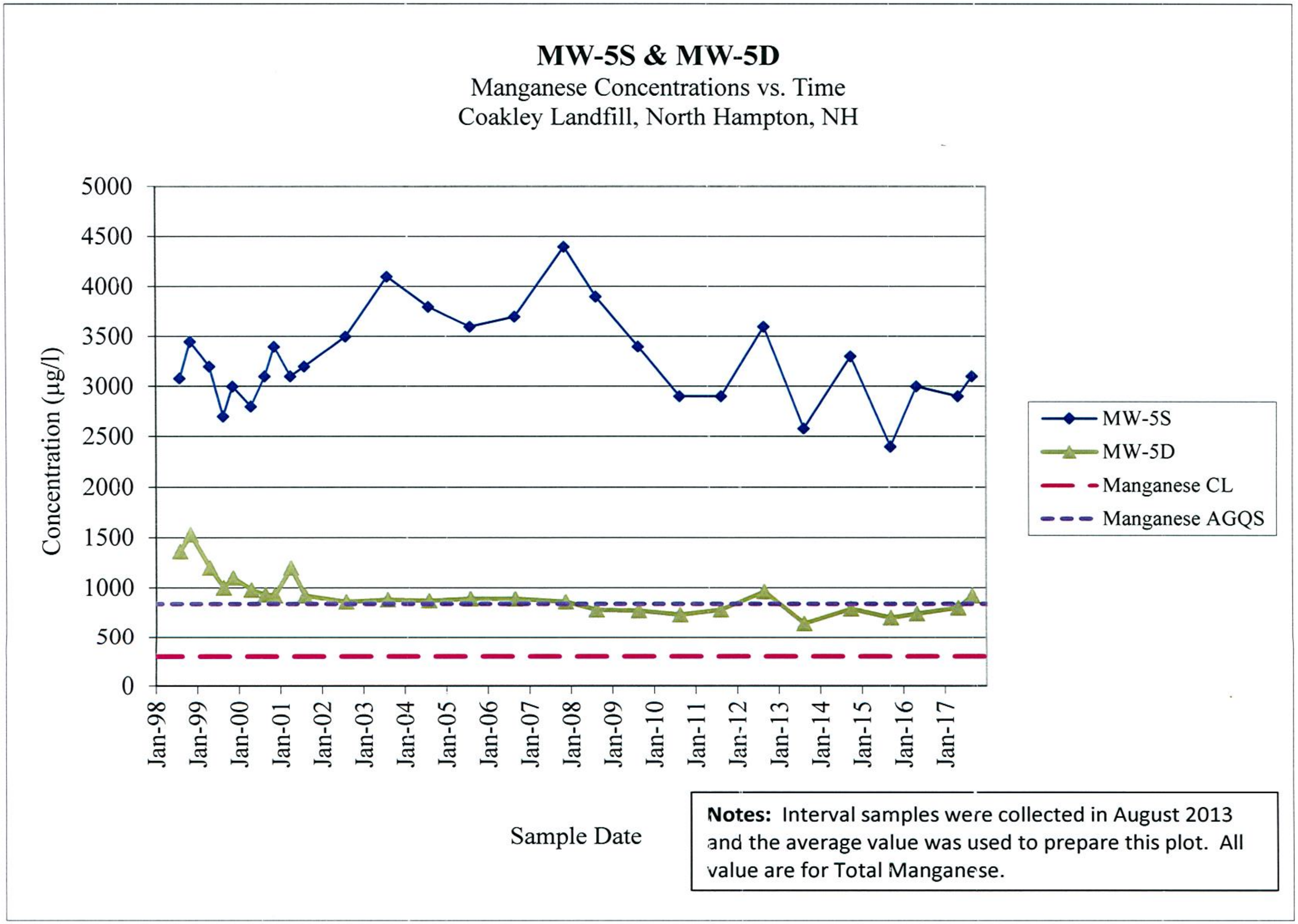
FPC-9A
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
900
800
700
600
500
400
300
200
100
0
Concentration (µg/l)
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Manganese
Manganese CL
Manganese AGQS
Notes: Total Manganese values plotted prior to 2014.
Dissolved Manganese values plotted beginning in 2014.



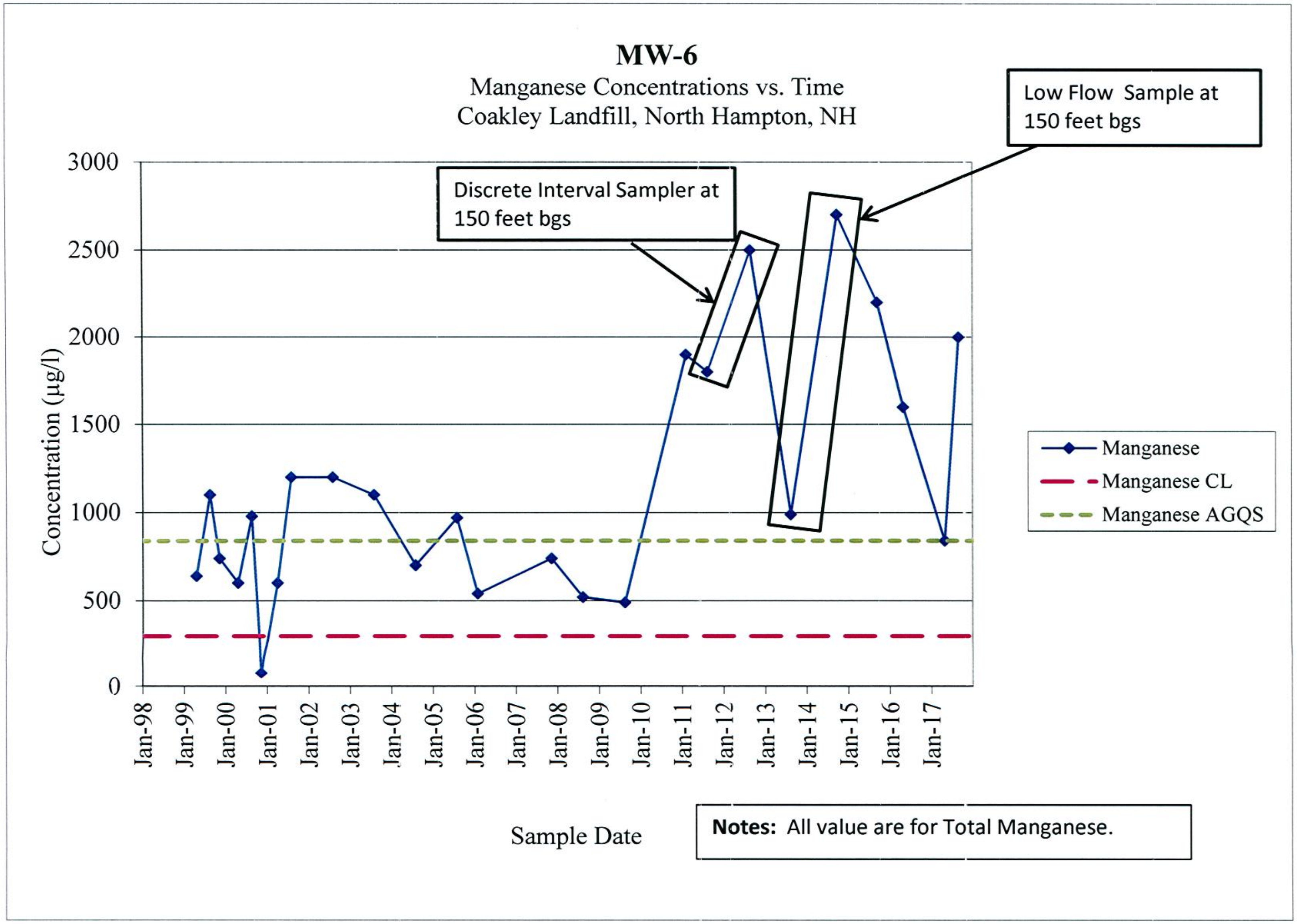
Notes: All values are for Total Manganese. Well was not sampled in August 2013 due to well integrity issues. Interval samples were collected in September 2014 and the average value was used to prepare this plot.



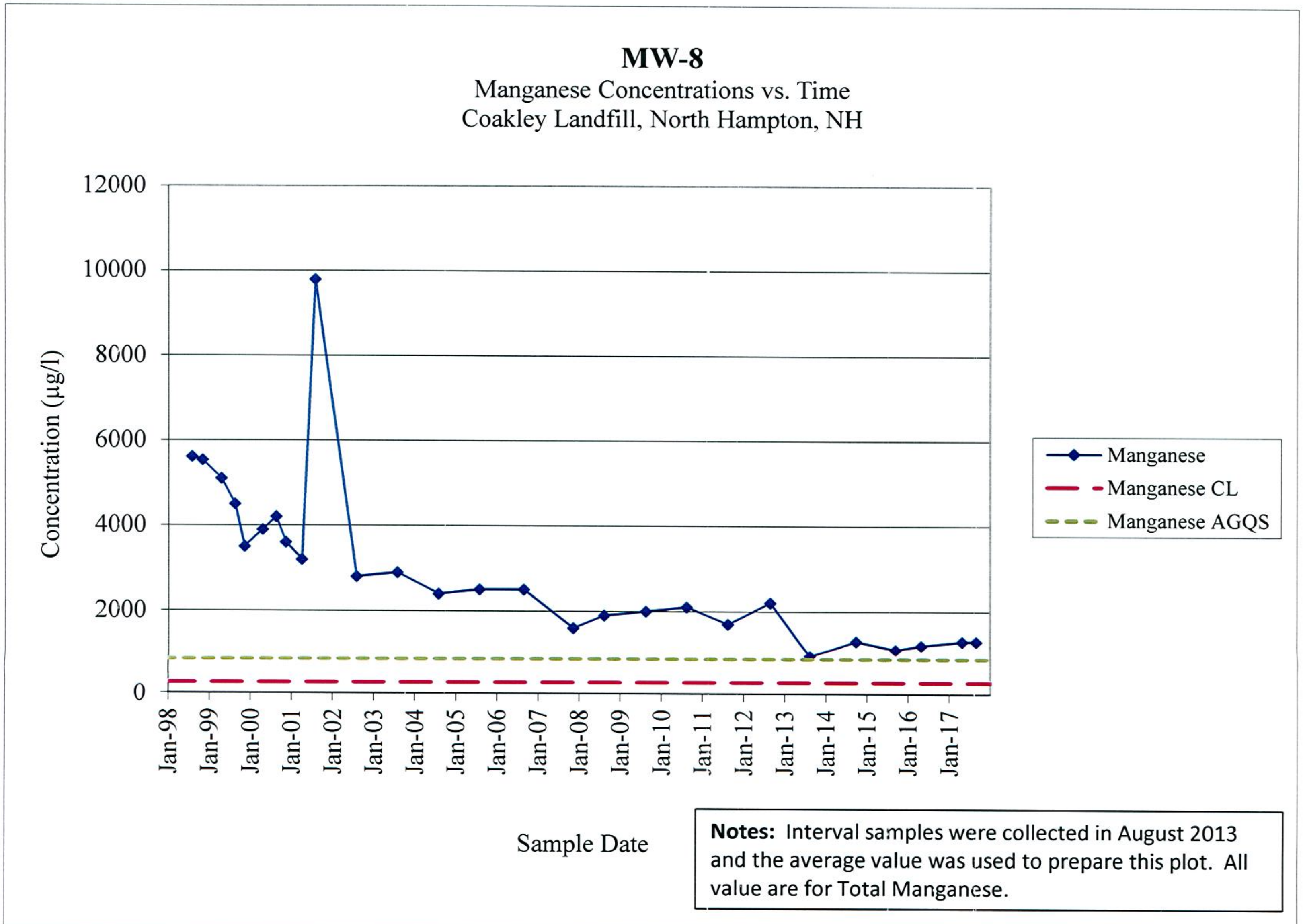
Notes: Total Manganese values plotted prior to 2014. Dissolved Manganese values plotted beginning in 2014.



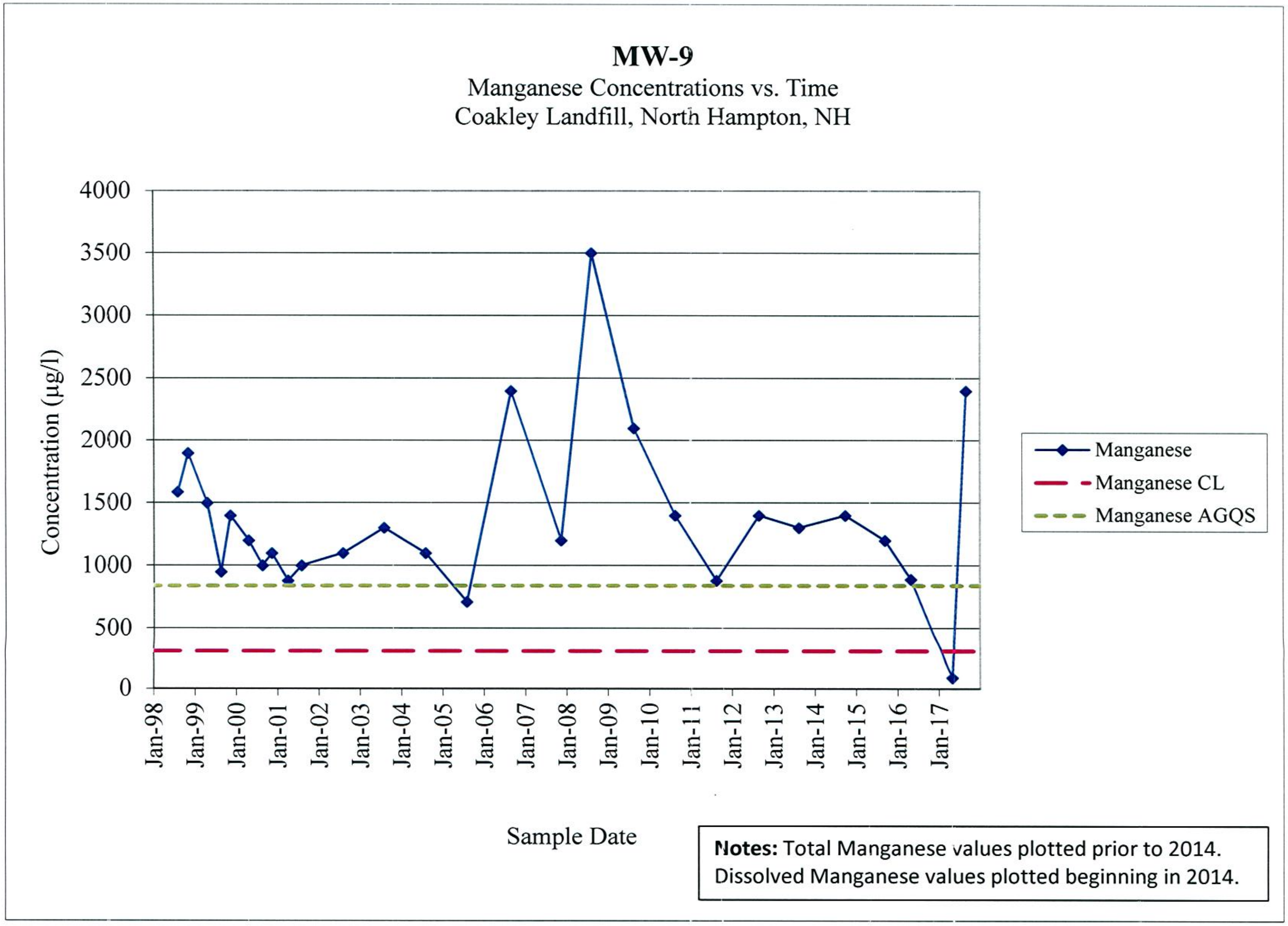
Notes: Interval samples were collected in August 2013 and the average value was used to prepare this plot. All value are for Total Manganese.



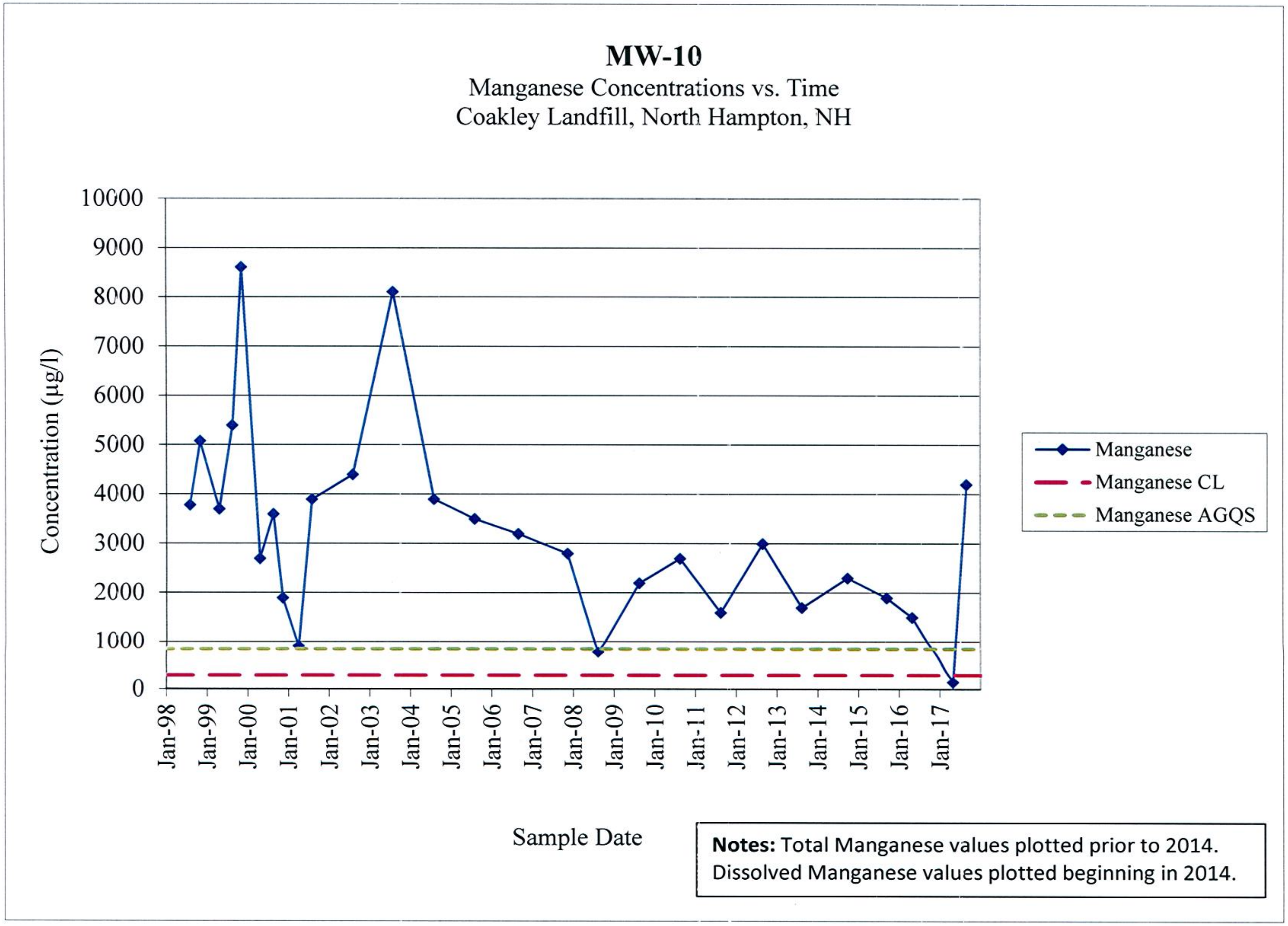
MW-6
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Low Flow Sample at 150 feet bgs
Discrete Interval Sampler at 150 feet bgs
3000
2500
2000
1500
1000
500
0
Concentration (µg/l)
Manganese
Manganese CL
Manganese AGQS
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Notes: All value are for Total Manganese.



Notes: Interval samples were collected in August 2013 and the average value was used to prepare this plot. All value are for Total Manganese.



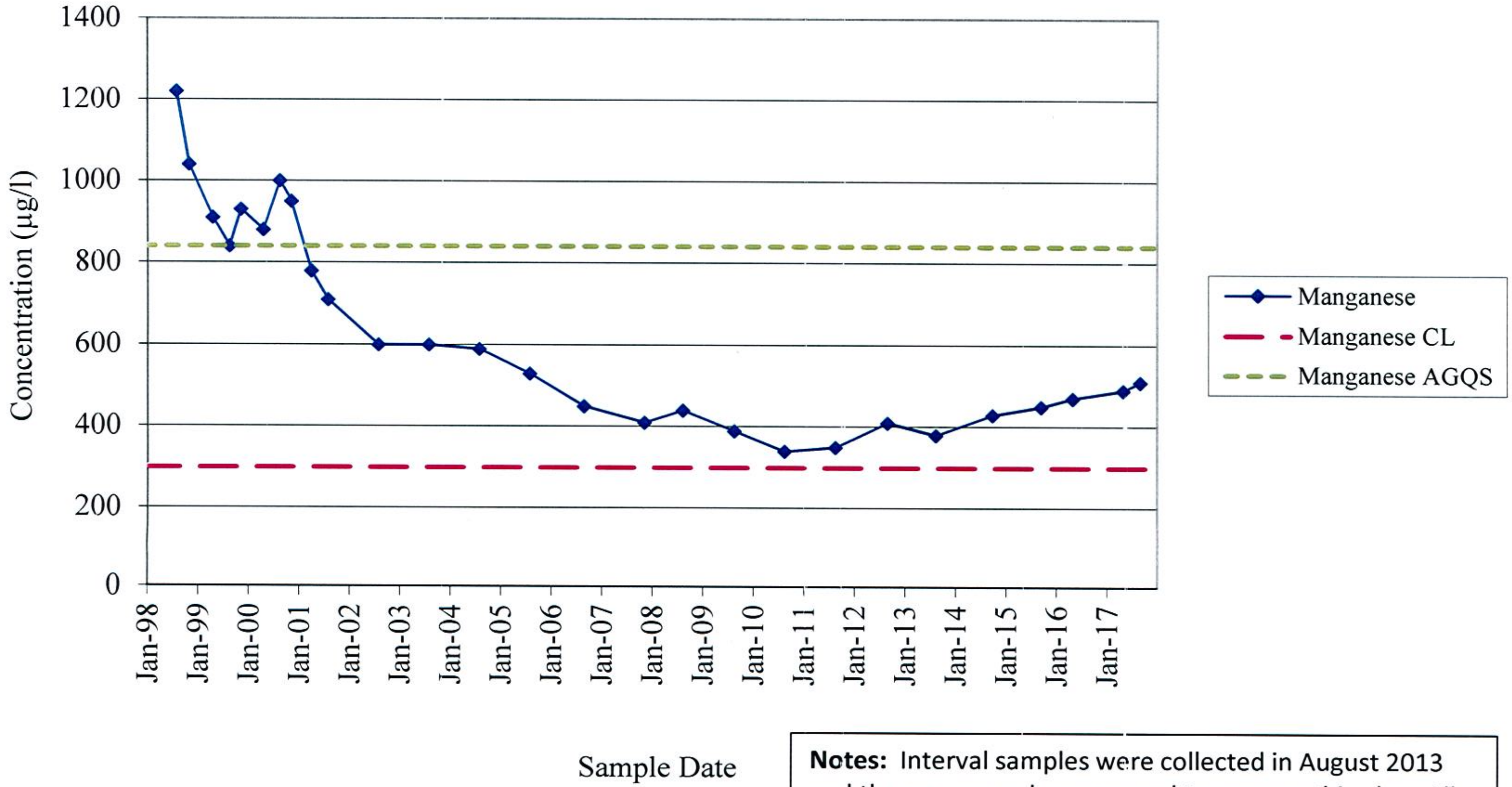
MW-9
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
4000
3500
3000
2500
2000
1500
1000
500
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Manganese
Manganese CL
Manganese AGQS
Notes: Total Manganese values plotted prior to 2014.
Dissolved Manganese values plotted beginning in 2014.



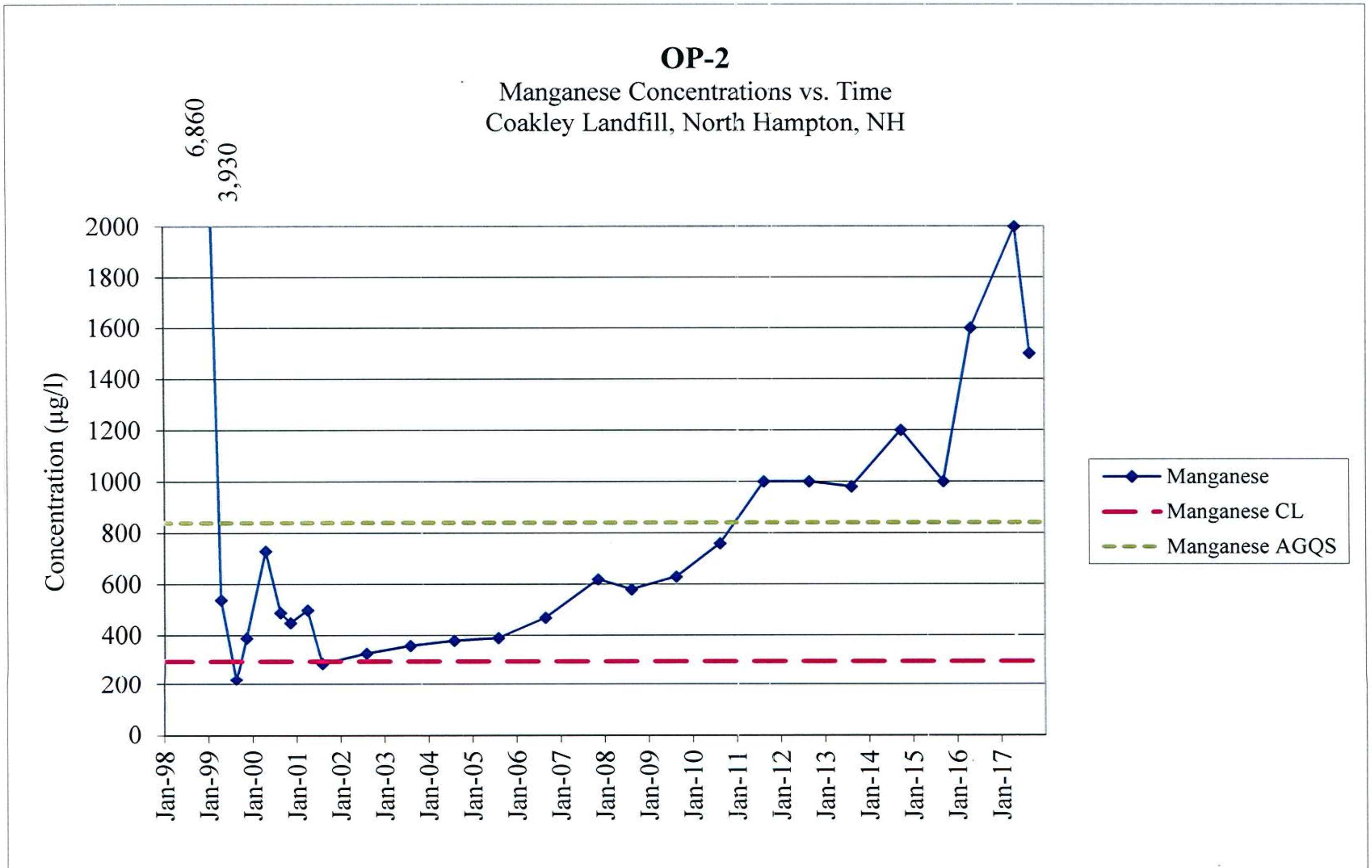
MW-10
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Manganese
Manganese CL
Manganese AGQS
Notes: Total Manganese values plotted prior to 2014.
Dissolved Manganese values plotted beginning in 2014.

MW-11

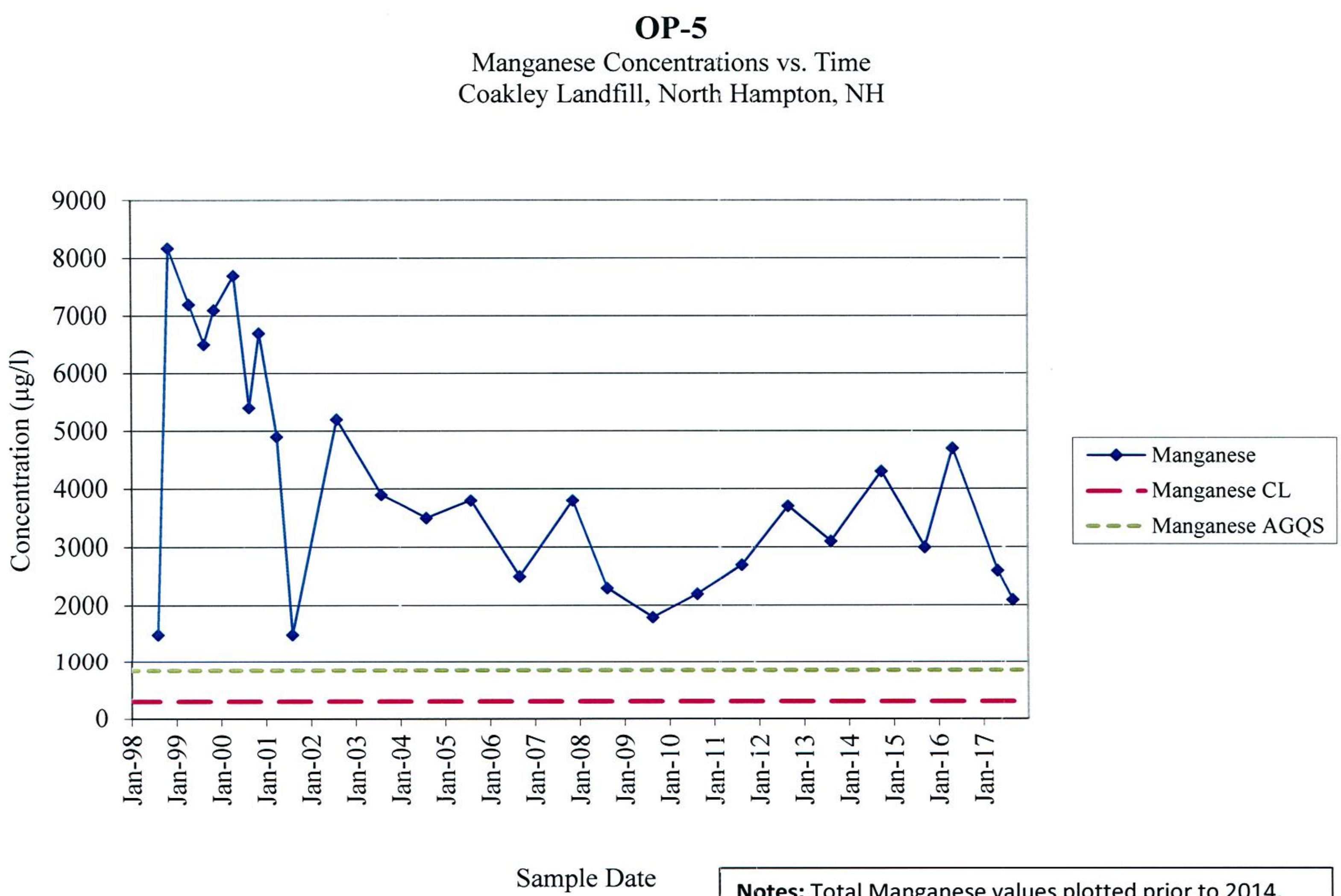
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH



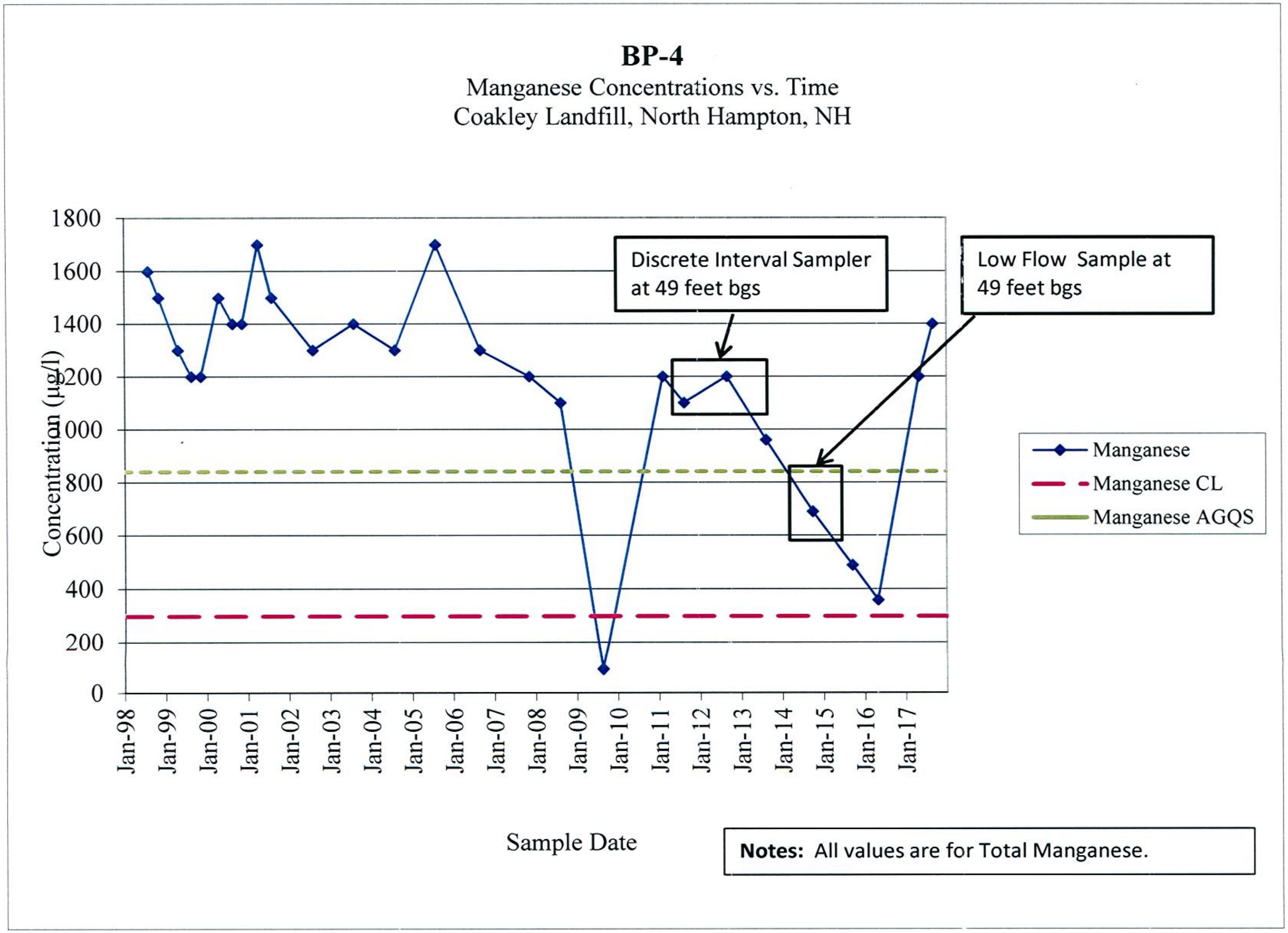
Notes: Interval samples were collected in August 2013 and the average value was used to prepare this plot. All value are for Total Manganese.



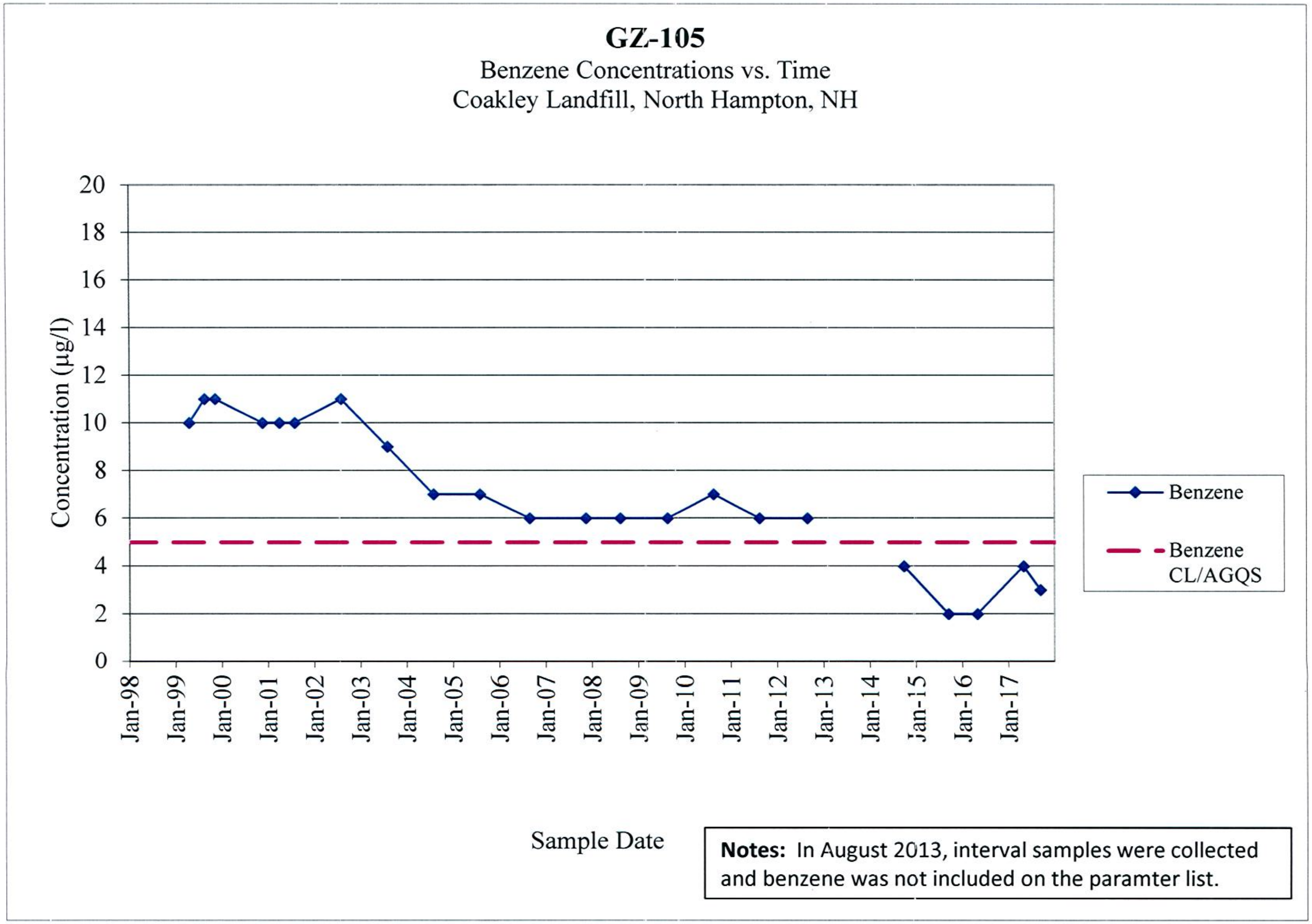
Notes: Total Manganese values plotted prior to 2014. Dissolved Manganese values plotted beginning in 2014.

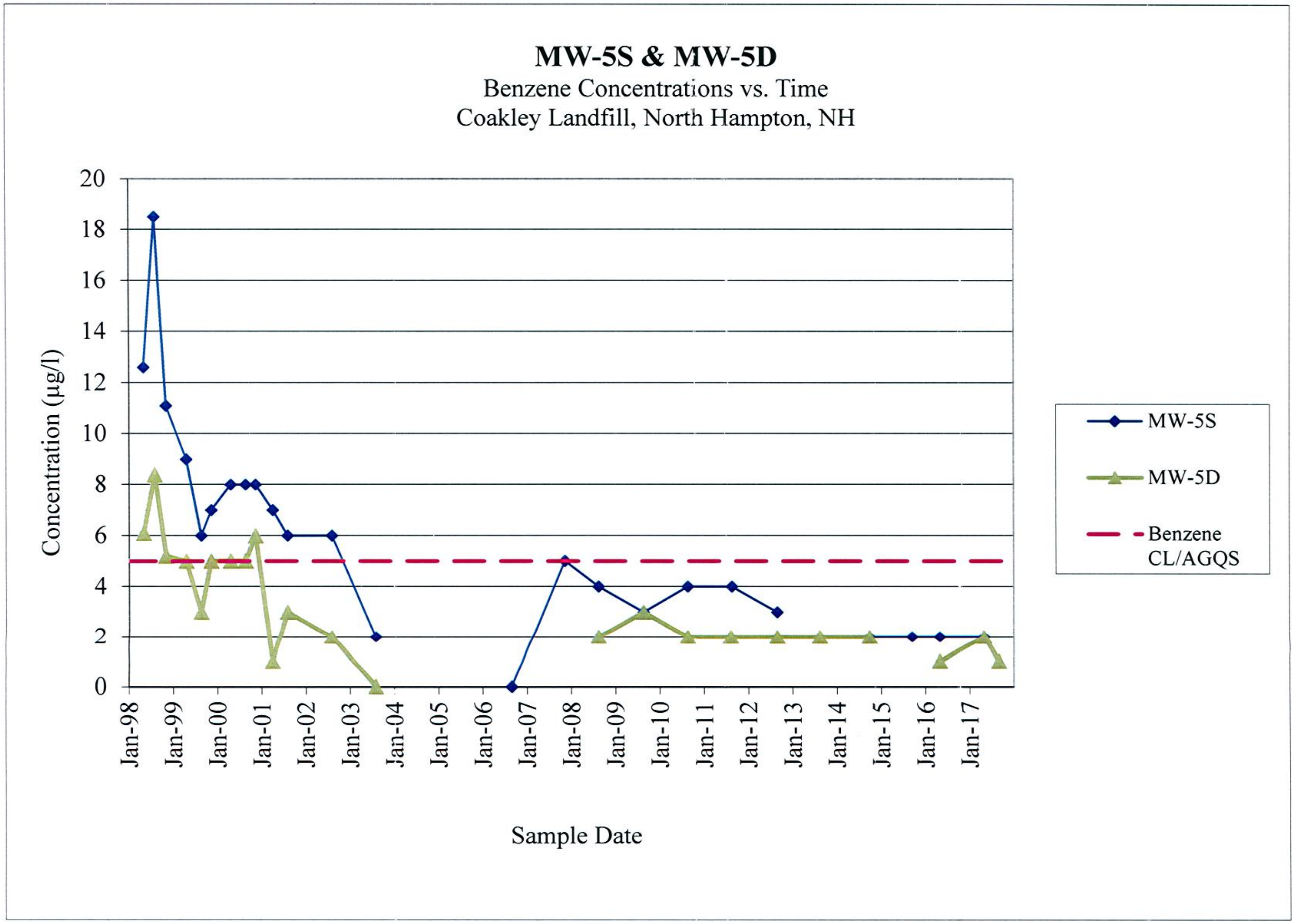


Notes: Total Manganese values plotted prior to 2014.
Dissolved Manganese values plotted beginning in 2014.

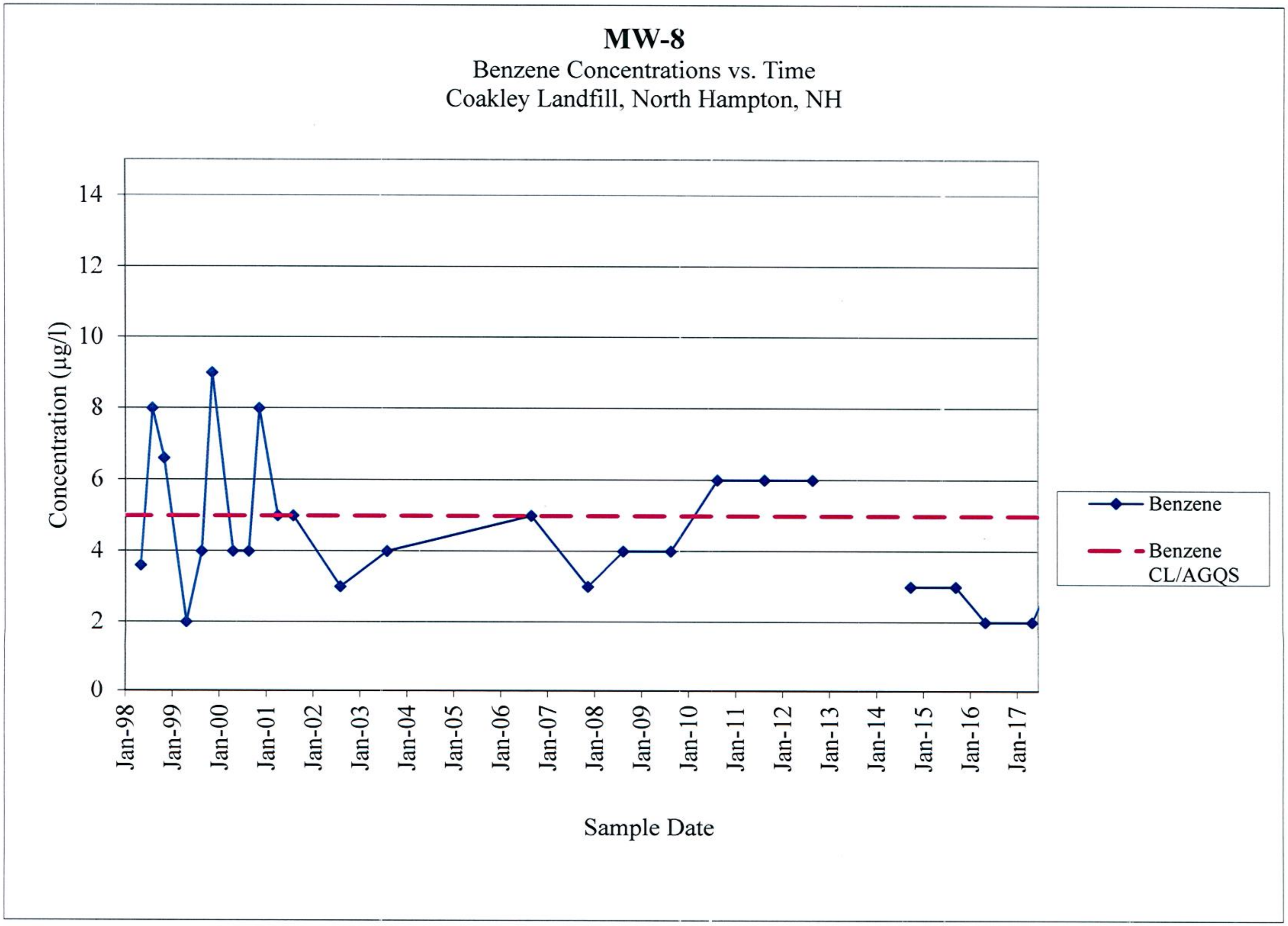


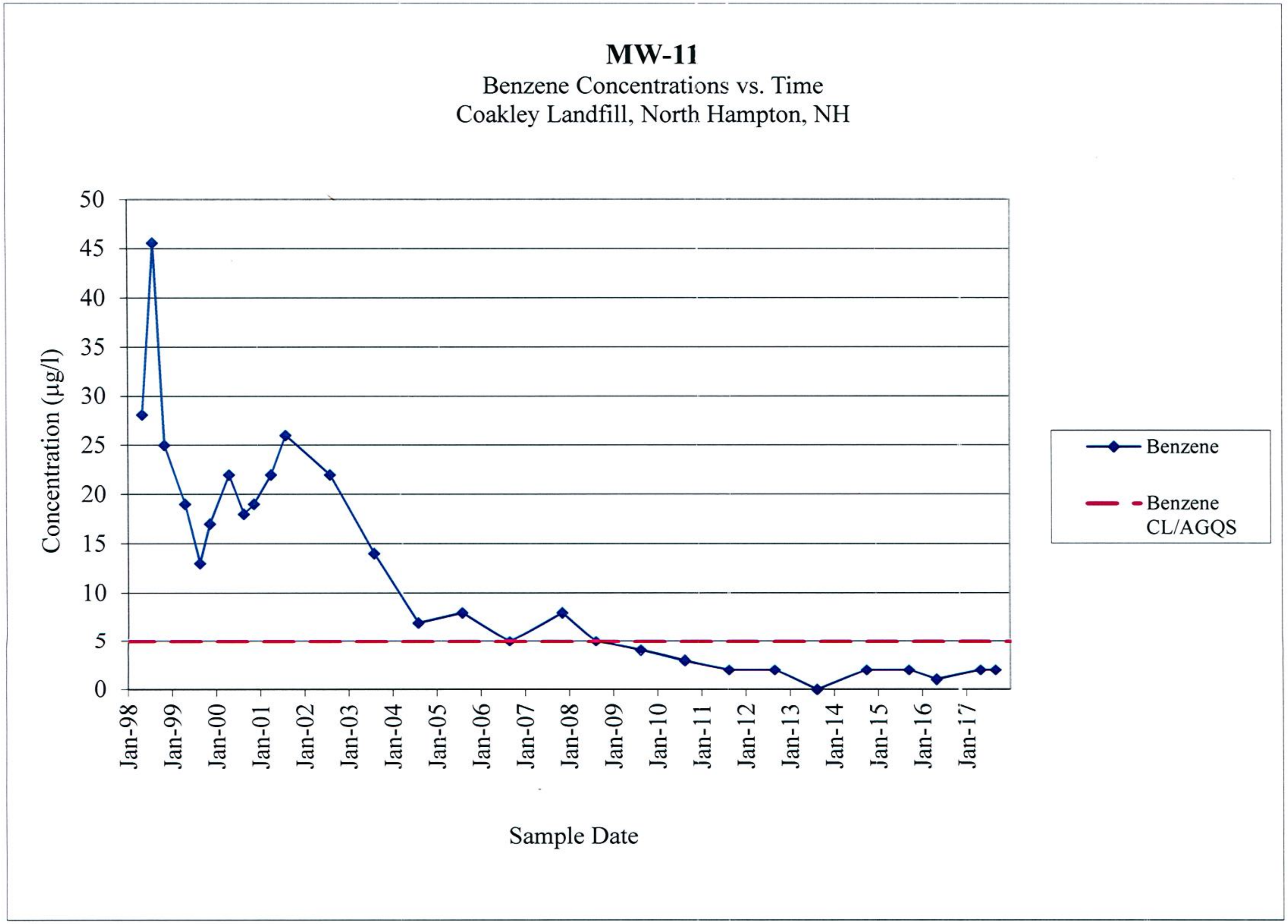
BP-4
Manganese Concentrations vs. Time
Coakley Landfill, North Hampton, NH
1800
1600
1400
1200
1000
800
600
400
200
0
Concentration (µg/l)
Discrete Interval Sampler at 49 feet bgs
Low Flow Sample at 49 feet bgs
Manganese
Manganese CL
Manganese AGQS
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Notes: All values are for Total Manganese.


GZ-105
Benzene Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
20
18
16
14
12
10
8
6
4
2
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Benzene
Benzene CL/AGQS
Sample Date
Notes: In August 2013, interval samples were collected and benzene was not included on the paramter list.



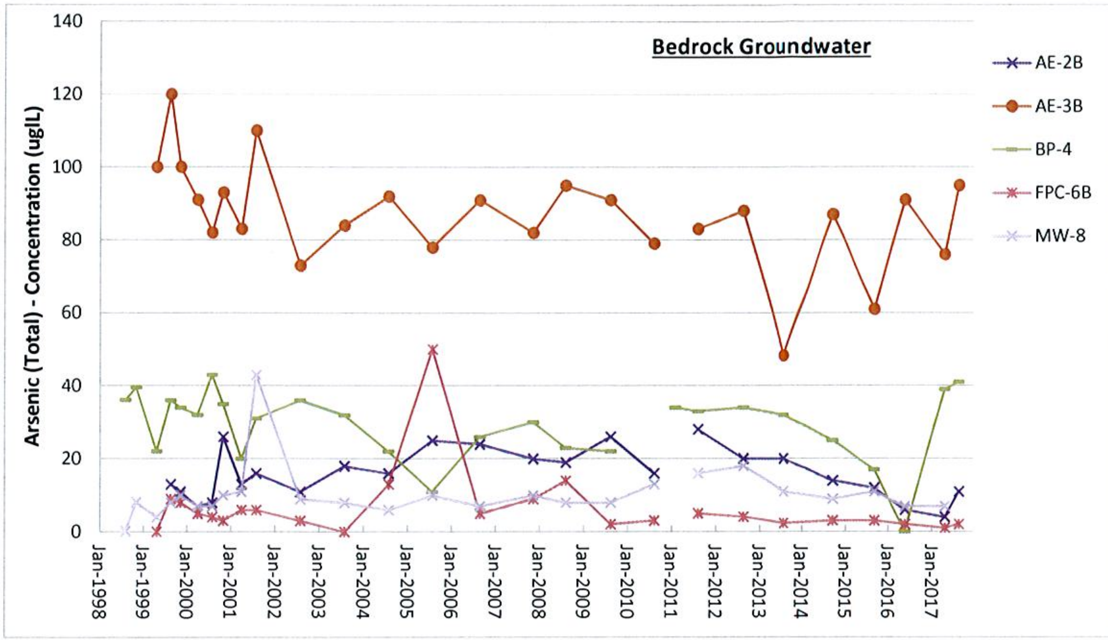
MW-5S & MW-5D
Benzene Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
20
18
16
14
12
10
8
6
4
2
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
MW-5S
MW-5D
Benzene CL/AGQS

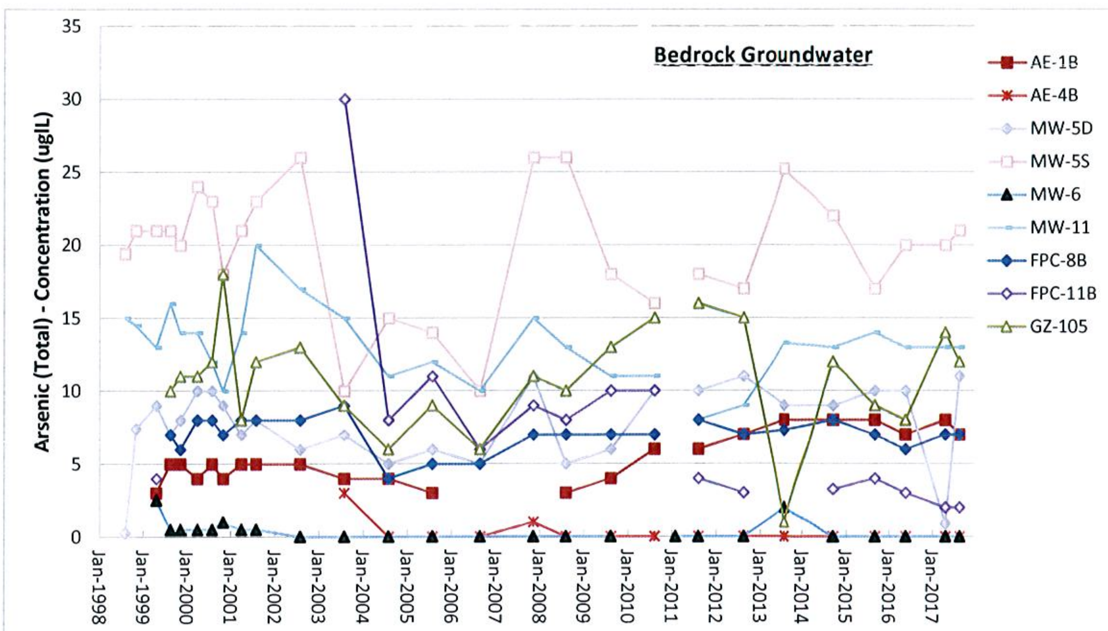

MW-8
Benzene Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
0
2
4
6
8
10
12
14
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Benzene
Benzene CL/AGQS



MW-11
Benzene Concentrations vs. Time
Coakley Landfill, North Hampton, NH
Concentration (µg/l)
50
45
40
35
30
25
20
15
10
5
0
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Sample Date
Benzene
Benzene CL/AGQS

Time Series Plots - Arsenic (Total) in Bedrock Wells
2017 Bi-Annual Report
Coakley Landfill - North Hampton, New Hampshire

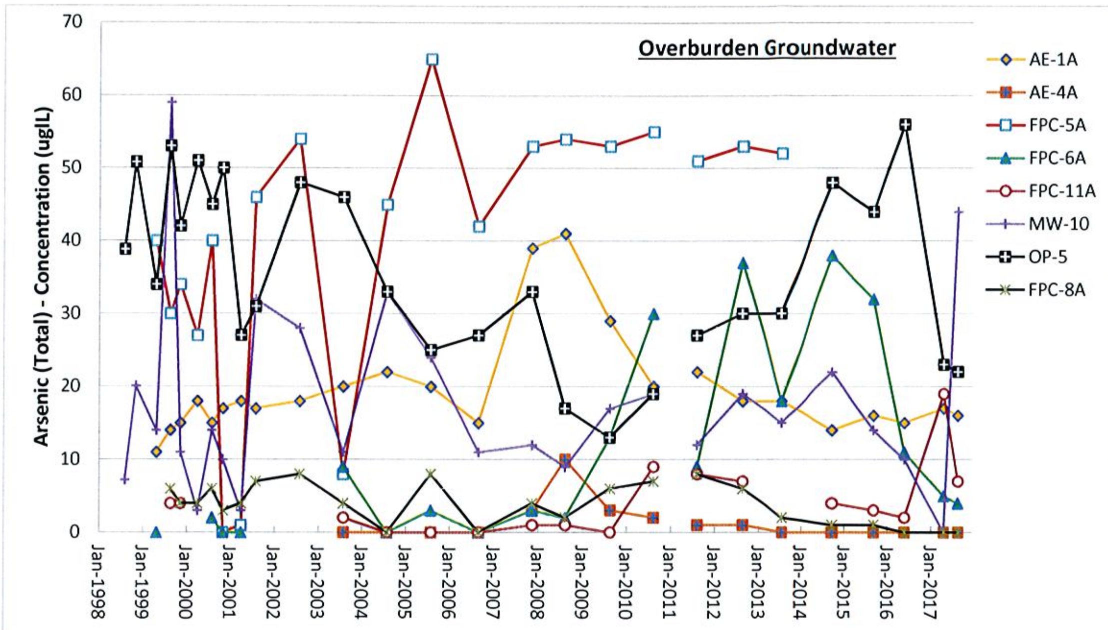


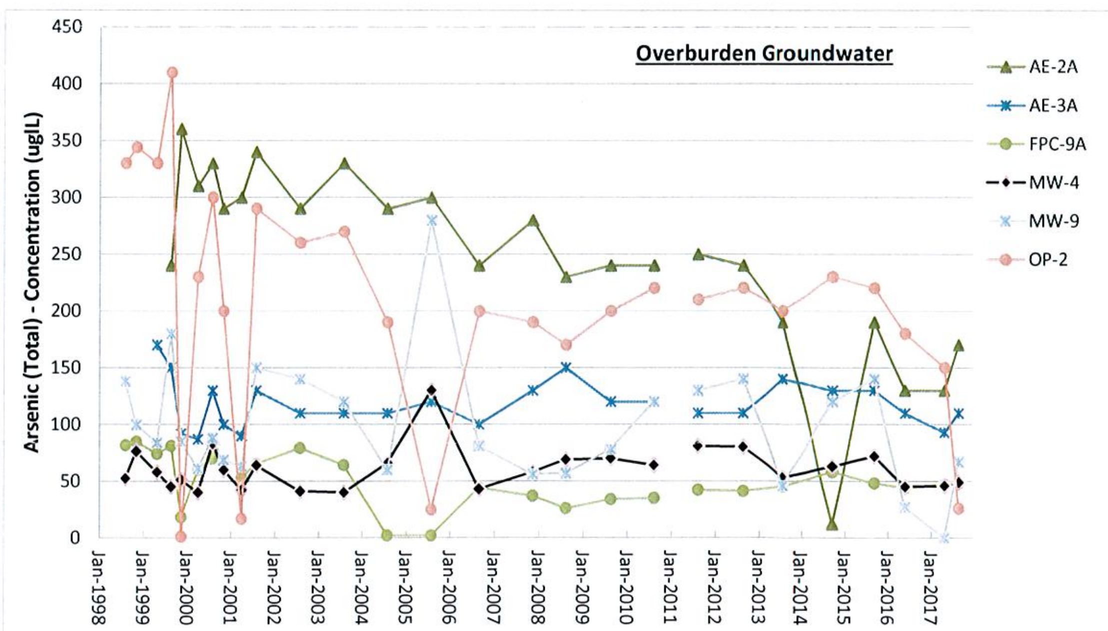


NOTES:

1. NHDES Ambient Groundwater Quality Standard for Arsenic is 10 ug/L.
2. EPA Cleanup Level for Arsenic 10 ug/L.
3. Non-Detects are plotted at zero.
4. In instances where primary and duplicate samples were collected, the higher value is plotted.
5. Interval samples were collected at MW-5S, MW-5D, MW-8, MW-11, FPC-5B, FPC-6B, FPC-8B, GZ-105 and AE-3B in Aug. 2013 and at FPC-11B in Sept. 2014. The average concentration for interval sample results at each individual well were used to prepare this plot.

Time Series Plots - Arsenic (Total/Dissolved) in Overburden Wells
2017 Bi-Annual Report
Coakley Landfill - North Hampton, New Hampshire

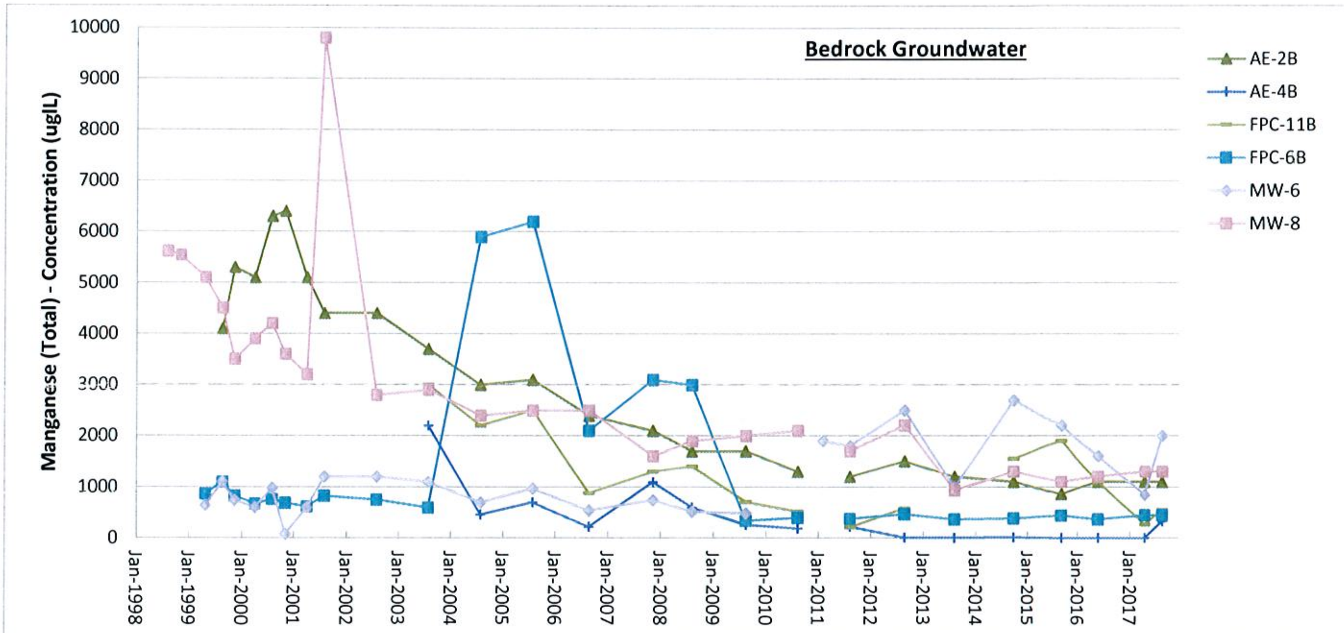


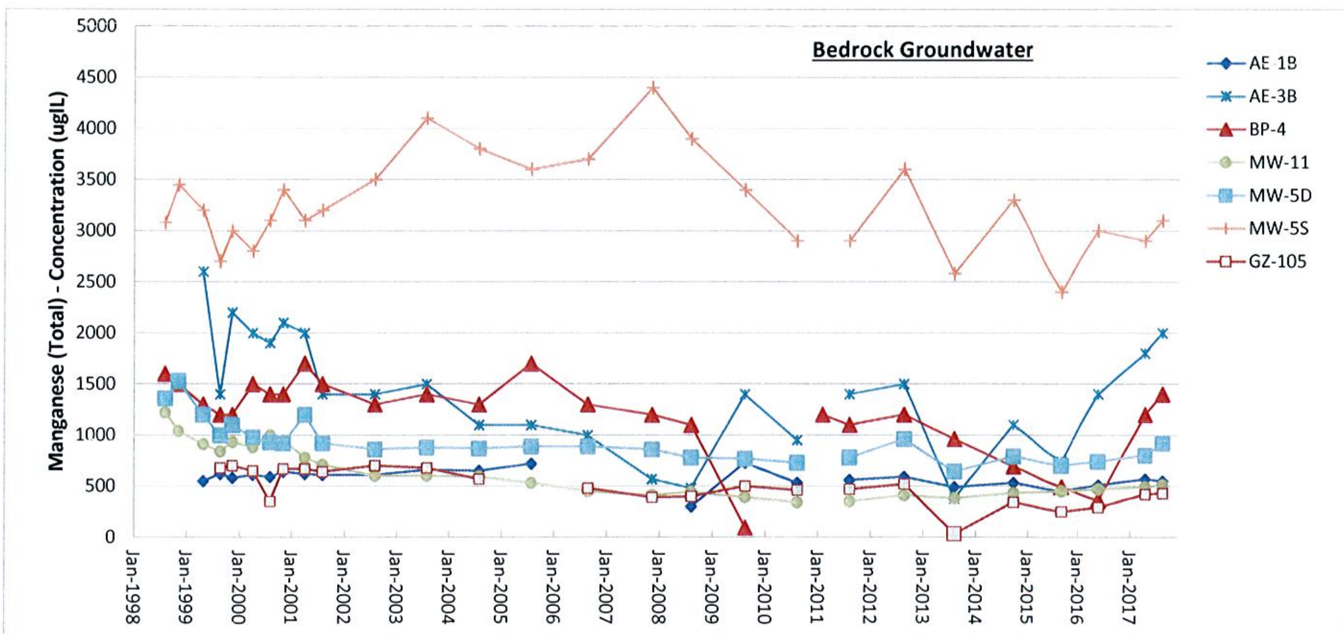


NOTES:

1. NHDES Ambient Groundwater Quality Standard for Arsenic is 10 ug/L.
2. EPA Cleanup Level for Arsenic 10 ug/L.
3. Non-Detects are plotted at zero.
4. In instances where primary and duplicate samples were collected, the higher value is plotted.
5. Total Arsenic results are plotted for events prior to Fall 2014. Beginning in Fall 2014 samples from all overburden wells were filtered (0.45 micron) at the time of sampling and Dissolved Arsenic results are plotted.

Time Series Plots - Manganese (Total) in Bedrock Wells
2017 Bi-Annual Report
Coakley Landfill - North Hampton, New Hampshire

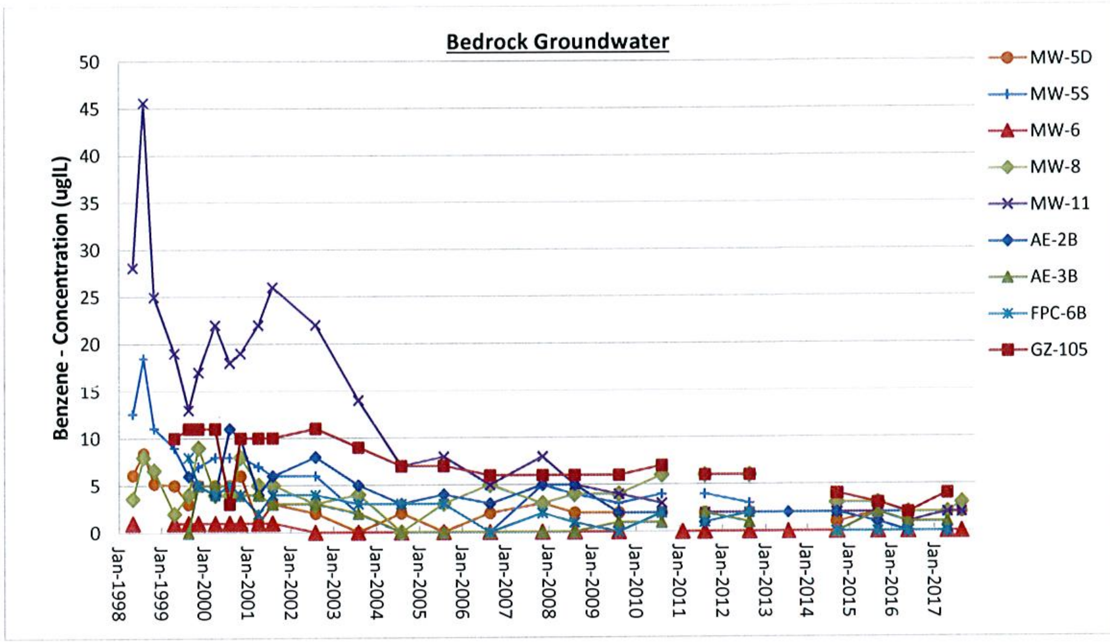


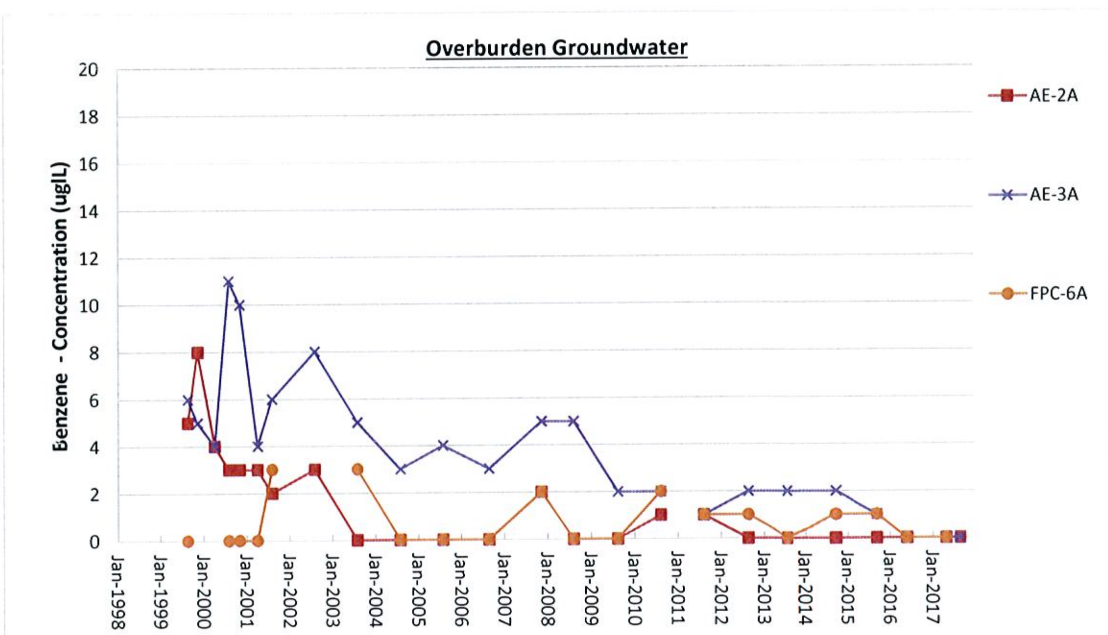


NOTES:

1. NHDES Ambient Groundwater Quality Standard for Manganese is 840 ug/L.
2. EPA Cleanup Level for Manganese is 300 ug/L.
3. Non-Detects are plotted at zero.
4. In instances where primary and duplicate samples were collected, the higher value is plotted.
5. Interval samples were collected at MW-5S, MW-5D, MW-8, MW-11, FPC-5B, FPC-6B, FPC-8B, GZ-105 and AE-3B in Aug. 2013 and at FPC-11B in Sept. 2014. The average concentration for interval sample results at each individual well were used to prepare this plot.

Time Series Plots - Benzene in Groundwater
2017 Bi-Annual Report
Coakley Landfill - North Hampton, New Hampshire





NOTES:

1. NHDES Ambient Groundwater Quality Standard for Benzene is 5 ug/L.
2. EPA Cleanup Level for for Benzene is 5 ug/L.
3. Non-Detects are plotted at zero.
4. In instances where primary and duplicate samples were collected, the higher value is plotted.

CES INC

APPENDIX A
JANUARY 2017 WATER SUPPLY WELL DATA TRANSMITTAL REPORT

March 1, 2017

Disclaimer: This document is a DRAFT document prepared by Settling Defendants under a government consent decree. This document has not undergone formal review by EPA and NHDES. The opinions, findings, and conclusions expressed are those of the author and not the U.S. Environmental Protection Agency and the New Hampshire Department of Environmental Services.

Peter Britz
Coakley Project Coordinator
1 Junkins Avenue
Portsmouth, New Hampshire 03801

RE: Results of Groundwater Sampling for Selected Off-Site Water Supply Wells - Coakley Landfill - North Hampton, New Hampshire

Dear Peter:

CES, Inc. (CES), on behalf of the Coakley Landfill Group (CLG), collected groundwater samples from 19 off-site water supply wells from January 23 through 27, 2017 for analysis of 1,4-dioxane, arsenic, manganese, and six perfluorinated chemicals (PFC). Four monitoring wells that are part of the regular annual sampling program were also analyzed for volatile organic compounds (VOCs) in accordance with the Site's Groundwater Management Permit (GMP). The CLG conducted the sampling of the off-site water supply wells in response to a request from the Environmental Protection Agency (EPA) and New Hampshire Department of Environmental Services (NHDES).

Site plans showing the locations off-site drinking water supply wells are included as **Figures 1 and 2**.

SAMPLING PROCEDURES AND RESULTS

Off-Site Water Supply Wells

CES collected samples from the following off-site water supply wells prior to any treatment systems (e.g., water softener, iron removal - if present):

- 5, 9, and 15 Berry Farm Lane.
- 339, 340, 346, 368 (R-3), 415, and 463 Breakfast Hill Road.
- 25 Falls Way.
- 67 Ridgecrest Drive.
- 4 and 10 Red Oak Drive.
- 4, 9, 10, 16, 19, and 21 Stone Meadow Way.

Groundwater samples from these wells were analyzed for the following parameters:

- Arsenic and manganese via EPA Method 2008.
- 1,4-dioxane using EPA Method 8260B SIM.

- Perfluorinated Compounds (PFCs) including perfluorobutanesulfonic acid (PFBS), perfluoroheptanoic acid (PFHpA), perfluorohexanesulfonic acid (PFHxS), perfluorooctanoic acid (PFOA), perfluorononanoic acid (PFNA), and perfluorooctanesulfonic acid (PFOS) via Modified EPA Method 537.

Four residences (339, 346, 368 (R-3), and 415 Breakfast Hill Road) were also analyzed for Volatile Organic Compounds via New Hampshire Department of Environmental Services (NHDES) Full List (EPA Method 8260B).

Groundwater samples were collected in accordance with the PFC Field Sampling Protocol contained in **Attachment 1** and sampling protocols contained in the 2015 Coakley Landfill Sampling and Analysis Plan (SAP) approved by EPA and NHDES. Groundwater samples were immediately placed on ice in a cooler and submitted under chain of custody to Eastern Analytical Inc. (EAI) in Concord, New Hampshire for the analysis of metals, VOCs, and 1,4-dioxane. EAI subcontracted Vista Analytical Laboratory in El Dorado Hills, California for analysis of PFCs using Modified EPA Method 537.

Quality Assurance protocols included analyses of equipment blank samples (completed on the water supply well sampling apparatus) as well as a field blank sample containing lab provided deionized water for analyses listed above.

Laboratory results for the off-site water supply groundwater samples are enclosed as **Attachment 2**. Laboratory results include a Quality Assurance/Quality Control (QA/QC) package prepared in accordance with the SAP. A Tier 1 Plus data validation was completed by Data Check, Inc. of New Durham, New Hampshire. No systemic concerns were identified during the Tier 1 Plus data review. None of the data were qualified as rejected and data completeness was 100%. A copy of the data validation report can be found in **Attachment 3**.

Table 1 presents a summary of analytical results from samples collected from 19 off-site water supply wells. *[Note that Table 1 also includes a summary of results from sampling performed by NHDES personnel in July 2016]*. As shown on the Table, one parameter (manganese) in three wells (339 Breakfast Hill Road, 4 Red Oak Drive, and 5 Berry Farm Lane) was reported slightly above the EPA Cleanup Level (CL) of 0.03 parts per million (ug/L) in the January 2017 results. However, all results were below the NHDES Ambient Groundwater Quality Standard (AGQS) for manganese of 0.84 ug/L. Arsenic was detected at concentrations below the CL and AGQS in all wells sampled.

1,4-dioxane was reported as Not Detected (ND) in 17 of the 19 off-site water supply wells sampled. 1,4-dioxane was detected at a concentration of 0.35 ug/L in 339 Breakfast Hill Road and 0.34 ug/L in R-3, well below the CL and AGQS of 3 ug/L. These two locations have historically detected low concentrations of 1,4-dioxane. Volatile organic compounds were not detected above the laboratory detection limit in any of the four wells sampled.

Laboratory results for PFOA and PFOS were reported as not detected (ND) above the laboratory Reporting Limit (RL) in 18 of the 19 wells sampled. The sample from 339 Breakfast Hill Road detected PFOA at a concentration 17.8 parts per trillion (ng/L), as well as PFHpA at a concentration of 8.06 ng/L which is slightly above the RL of 8.0 ng/L. The PFOA concentration is well below EPA's Lifetime Health Advisory and NHDES AGQS of 70 ng/l. PFHpA does not have a Health Advisory value or AGQS.

SUMMARY

Based on the results of the off-site water supply well sampling, the following findings were made:

- Data validation indicates data are reliable and none of the data were qualified as rejected.
- Arsenic was not detected at concentrations above the CL or AGQS in any of the 19 samples.
- One parameter (manganese) was detected at concentrations slightly above the EPA CL at 339 Breakfast Hill Road, 4 Red Oak Drive, and 5 Berry Farm Lane. All results were below the NHDES AGQS for manganese.
- VOCs were not detected in the four water supply wells that are part of the routine annual sampling program contained in the GMP.
- 1,4-dioxane was not detected in 17 of the 19 samples. 1,4-dioxane was detected at a concentration of 0.35 ug/L in 339 Breakfast Hill Road and 0.34 ug/L in R-3, well below the CL and AGQS of 3 ug/L. These two locations have historically detected low concentrations of 1,4-dioxane.
- PFOA, PFOS, and the combined concentrations of PFOA and PFOS were reported as ND above the laboratory Reporting Limit in 18 of the 19 wells sampled. The sample from 339 Breakfast Hill Road detected PFOA at a concentration 17.8 parts per trillion (ng/L) which is a slight decline from the July 2016 result (25 ng/L).

With exception of wells R-3 and 339 Breakfast Hill Road that are part of the annual GMP sampling program, none of the wells sampled show evidence of impacts attributable to the Coakley landfill.

The next sampling round for these 19 wells is scheduled for the Fall of 2017.

If you have any questions concerning this project, please contact the undersigned at (207) 795-6009.

Sincerely,
CES, Inc.

Suzanne Yerina, P.G.
Project Geologist

Michael A. Deyling, P.G.
Senior Project Geologist

SLY/MAD/jna

Enclosures

TABLE 1
Summary of Analytical Results for Off-Site Water Supply Wells
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	EPA	NHDES	EPA	339 BHR	339 BHR	346 BHR	346 BHR	415 BHR	415 BHR	R-3	R-3 Dup	R-3	R-3 Dup	67 RCD	67 RCD
DATE SAMPLED	**CL**	**AGQS**	**MCL**	26-May-16	27-Jan-17	26-May-16	27-Jan-17	25-May-16	27-Jan-17	1-Jun-16	1-Jun-16	24-Jan-17	24-Jan-17	26-May-16	26-Jan-17
VOLATILE ORGANIC COMPOUNDS															
Methyl tert-butyl ether (ug/L)	-	13	-	<0.05	<0.05	<0.05	<0.005	<0.05	<0.005	<0.05	<0.05	<0.005	<0.005	NA	NA
Toluene (ug/L)	-	1000	1000	<0.05	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.05	<0.005	<0.005	NA	NA
1,4-dioxane (ug/L)	3	3	-	0.51	0.35	<0.25	<0.25	<0.25	<0.25	0.3	0.34	0.33	0.34	<0.25	<0.25
METALS															
Arsenic, total (mg/L)	0.01	0.01	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, total (mg/L)	0.3	0.84	-	**0.31J**	**0.42**	0.28J	0.29	0.046J	0.055	0.19J	0.19J	0.19	0.19	0.17J	0.21
FIELD PARAMETERS															
Temperature (degrees Celcius)	-	-	-	12	11	11	11	11	10	11	NA	10	NA	11	8
pH (standard units)	-	-	-	7.2	7.1	6.9	6.8	8.6	8.4	7.9	NA	7.9	NA	7.7	7.5
Conductivity (uS/cm)	-	-	-	424	368	893	791	401	395	402	NA	348	NA	286	256
Dissolved Oxygen (mg/L)	-	-	-	2.2	0.8	1.4	1.1	0.6	<0.5	< 0.5	NA	<0.5	NA	< 0.5	<0.5
Turbidity (NTU)	-	-	-	7	23	8	14	< 5	<5	< 5	NA	<5	NA	< 5	<5
Oxidation/Reduction Potential (mV)	-	-	-	-94	-78	-2	3	-237	-252	-180	NA	-173	NA	-140	-136
PERFLUORINATED CHEMICALS BY MODIFIED 537 - (ng/L)															
Date Sampled	**EPA**	**NHDES**		**339 BHR**	**339 BHR**	**346 BHR**	**346 BHR**	**415 BHR**	**415 BHR**	**R-3**	**R-3 Dup**	**R-3**	**R-3 Dup**	**67 RCD**	**67 RCD**
	HA	**AGQS**		11-Jul-16	27-Jan-17	11-Jul-16	27-Jan-17	11-Jul-16	27-Jan-17	11-Jul-16	NA	24-Jan-17	24-Jan-17	NA	26-Jan-17
Perfluorobutanesulfonic acid (PFBS)	---	---		<16	<8	<16	<8	<16	<8	<16	NA	<8	<8	NA	<8
Perfluoroheptanoic acid (PFHpA)	---	---		<16	8.06	<16	<8	<16	<8	<16	NA	<8	<8	NA	<8
Perfluorohexanesulfonic acid (PFHxS)	---	---		<8	<8	<8	<8	<8	<8	<8	NA	<8	<8	NA	<8
Perfluorooctanoic acid (PFOA)	70	70		25	17.8	<8	<8	<8	<8	<8	NA	<8	<8	NA	<8
Perfluorononanoic acid (PFNA)	---	---		<16	<8	<8	<8	<8	<8	<8	NA	<8	<8	NA	<8
Perfluorooctanesulfonic (PFOS)	70	70		<8	<8	<16	<8	<16	<8	<16	NA	<8	<8	NA	<8
Combination of PFOA and PFOS	---	70		25	17.8	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND

TABLE NOTES:

TABLE ABBREVIATIONS:

NA = Not Analyzed
NM = Not Measured
NR = Not Recorded - field parameter measurement did not meet QA/QC criteria and were rejected
uS/cm = microsiemens per centimeter
ug/L = micrograms per liter (parts per billion)
mg/L = milligrams per liter (parts per million)
NTU - Nephelometric Turbidity Units
mV = millivolts
< = parameter concentration below detection limit indicated
R-3-DUP = duplicate sample collected at R-3

NHDES AGQS = NHDES Ambient Groundwater Quality Standard
EPA MCL = EPA Primary Drinking Water Standard
EPA CL = EPA Groundwater Quality Standard
BHR = Breakfast Hill Road
RCD = Ridgecreast Drive
SMW = Stone Meadow Way
Bold values denote concentration exceeding the EPA Interium Cleanup Level (ICL).
Shaded values denote concentration exceeding the NHDES Ambient Groundwater Quality Standard
Post = Post treatment sample collected for arsenic and manganese.
J = The reported analyte is an estimated concentration

BFL = Berry Farm Lane
ROD = Red Oak Drive
FW = Falls Way

TABLE 1
Summary of Analytical Results for Off-Site Water Supply Wells
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	EPA	NHDES	EPA	4 SMW	4 SMW Post	4 SMW	9 SMW	9 SMW Post	9 SMW	10 SMW	10 SMW Post	10 SMW	16 SMW	16 SMW Post	16 SMW
DATE SAMPLED	**CL**	**AGQS**	**MCL**	26-May-16	26-May-16	25-Jan-17	26-May-16	26-May-16	25-Jan-17	25-May-16	25-May-16	24-Jan-17	27-May-16	27-May-16	26-Jan-17
VOLATILE ORGANIC COMPOUNDS															
Methyl tert-butyl ether (ug/L)	-	13	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene (ug/L)	-	1000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-dioxane (ug/L)	3	3	-	<0.25	NA	<0.25	<0.25	NA	<0.25	<0.25	NA	<0.25	<0.25	NA	<0.25
METALS															
Arsenic, total (mg/L)	0.01	0.01	0.01	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.011**	<0.001	<0.001
Manganese, total (mg/L)	0.3	0.84	-	0.14J	<0.005J	0.034	0.14J	<0.005J	0.14	0.14J	<0.005J	0.088	**2.1J**	0.016J	0.028
FIELD PARAMETERS															
Temperature (degrees Celcius)	-	-	-	12	NA	12	11	NA	9	11	NA	11	10	NA	10
pH (standard units)	-	-	-	6.8	NA	6.6	7.9	NA	8.2	6.8	NA	6.8	7.5	NA	7.3
Conductivity (uS/cm)	-	-	-	663	NA	522	435	NA	346	411	NA	323	549	NA	428
Dissolved Oxygen (mg/L)	-	-	-	1.0	NA	0.9	4.5	NA	<0.5	3.3	NA	3.6	1	NA	0.8
Turbidity (NTU)	-	-	-	< 5	NA	<5	5	NA	<5	< 5	NA	<5	< 5	NA	9.00
Oxidation/Reduction Potential (mV)	-	-	-	93	NA	153	-194	NA	-205	53	NA	74	75	NA	159
PERFLUORINATED CHEMICALS BY MODIFIED 537 - (ng/L)															
Date Sampled	**EPA**	**NHDES**		**4 SMW**	**4 SMW Post**	**4 SMW**	**9 SMW**	**9 SMW Post**	**9 SMW**	**10 SMW**	**10 SMW Post**	**10 SMW**	**16 SMW**	**16 SMW Post**	**16 SMW**
	HA	**AGQS**		11-Jul-16	NA	25-Jan-17	11-Jul-16	NA	25-Jan-17	11-Jul-16	NA	24-Jan-17	NA	NA	26-Jan-17
Perfluorobutanesulfonic acid (PFBS)	---	---		<16	NA	<8	<16	NA	<8	<16	NA	<8	NA	NA	<8
Perfluoroheptanoic acid (PFHpA)	---	---		22B	NA	<8	<16	NA	<8	77B	NA	<8	NA	NA	<8
Perfluorohexanesulfonic acid (PFHxS)	---	---		<8	NA	<8	<8	NA	<8	<8	NA	<8	NA	NA	<8
Perfluorooctanoic acid (PFOA)	70	70		<8	NA	<8	<8	NA	<8	<8	NA	<8	NA	NA	<8
Perfluorononanoic acid (PFNA)	---	---		<8	NA	<8	<8	NA	<8	<8	NA	<8	NA	NA	<8
Perfluorooctanesulfonic (PFOS)	70	70		<16	NA	<8	<16	NA	<8	<16	NA	<8	NA	NA	<8
Combination of PFOA and PFOS	---	70		ND	NA	ND	ND	NA	ND	ND	NA	ND	NA	NA	ND

TABLE 1
Summary of Analytical Results for Off-Site Water Supply Wells
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	EPA	NHDES	EPA	19 SMW	19 SMW Post	19 SMW	21 SMW	21 SMW Post	21 SMW	4 ROD	4 ROD Post	4 ROD	10 ROD	10 ROD Post	10 ROD
DATE SAMPLED	**CL**	**AGQS**	**MCL**	27-May-16	27-May-16	23-Jan-17	25-May-16	25-May-16	23-Jan-17	26-May-16	26-May-16	23-Jan-17	25-May-16	25-May-16	26-Jan-17
VOLATILE ORGANIC COMPOUNDS															
Methyl tert-butyl ether (ug/L)	-	13	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene (ug/L)	-	1000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-dioxane (ug/L)	3	3	-	<0.25	NA	<0.25	<0.25	NA	<0.25	<0.25	NA	<0.25	<0.25	NA	<0.25
METALS															
Arsenic, total (mg/L)	0.01	0.01	0.01	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese, total (mg/L)	0.3	0.84	-	0.15J	0.009J	0.063	0.06J	<0.005J	0.064	**0.34J**	<0.005J	**0.38**	**0.31J**	<0.005J	0.008
FIELD PARAMETERS															
Temperature (degrees Celcius)	-	-	-	10	NA	10	11	NA	11	11	NA	10	10	NA	9
pH (standard units)	-	-	-	8.0	NA	8.3	8.5	NA	8.4	7.0	NA	7.1	7.7	NA	7.5
Conductivity (uS/cm)	-	-	-	852	NA	705	681	NA	671	609	NA	589	494	NA	464
Dissolved Oxygen (mg/L)	-	-	-	0.5	NA	<0.5	0.6	NA	0.6	1.1	NA	<0.5	1.1	NA	0.6
Turbidity (NTU)	-	-	-	< 5	NA	<5	< 5	NA	<5	< 5	NA	<5	< 5	NA	<5
Oxidation/Reduction Potential (mV)	-	-	-	-167	NA	-188	-188	NA	-167	-37	NA	-50	8	NA	155
PERFLUORINATED CHEMICALS BY MODIFIED 537 - (ng/L)															
Date Sampled	**EPA**	**NHDES**		**19 SMW**	**19 SMW Post**	**19 SMW**	**21 SMW**	**21 SMW Post**	**21 SMW**	**4 ROD**	**4 ROD Post**	**4 ROD**	**10 ROD**	**10 ROD Post**	**10 ROD**
	HA	**AGQS**		11-Jul-16	NA	23-Jan-17	13-Jul-16	NA	23-Jan-17	11-Jul-16	NA	23-Jan-17	11-Jul-16	NA	26-Jan-17
Perfluorobutanesulfonic acid (PFBS)	---	---		<16	NA	<8	<16	NA	<8	<16	NA	<8	<16	NA	<8
Perfluoroheptanoic acid (PFHpA)	---	---		91B	NA	<8	<16	NA	<8	<16	NA	<8	<16	NA	<8
Perfluorohexanesulfonic acid (PFHxS)	---	---		<8	NA	<8	<8	NA	<8	<8	NA	<8	<8	NA	<8
Perfluorooctanoic acid (PFOA)	70	70		<8	NA	<8	<8	NA	<8	<8	NA	<8	<8	NA	<8
Perfluorononanoic acid (PFNA)	---	---		<8	NA	<8	<8	NA	<8	<8	NA	<8	<8	NA	<8
Perfluorooctanesulfonic (PFOS)	70	70		<16	NA	<8	<16	NA	<8	<16	NA	<8	<16	NA	<8
Combination of PFOA and PFOS	---	70		ND	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND

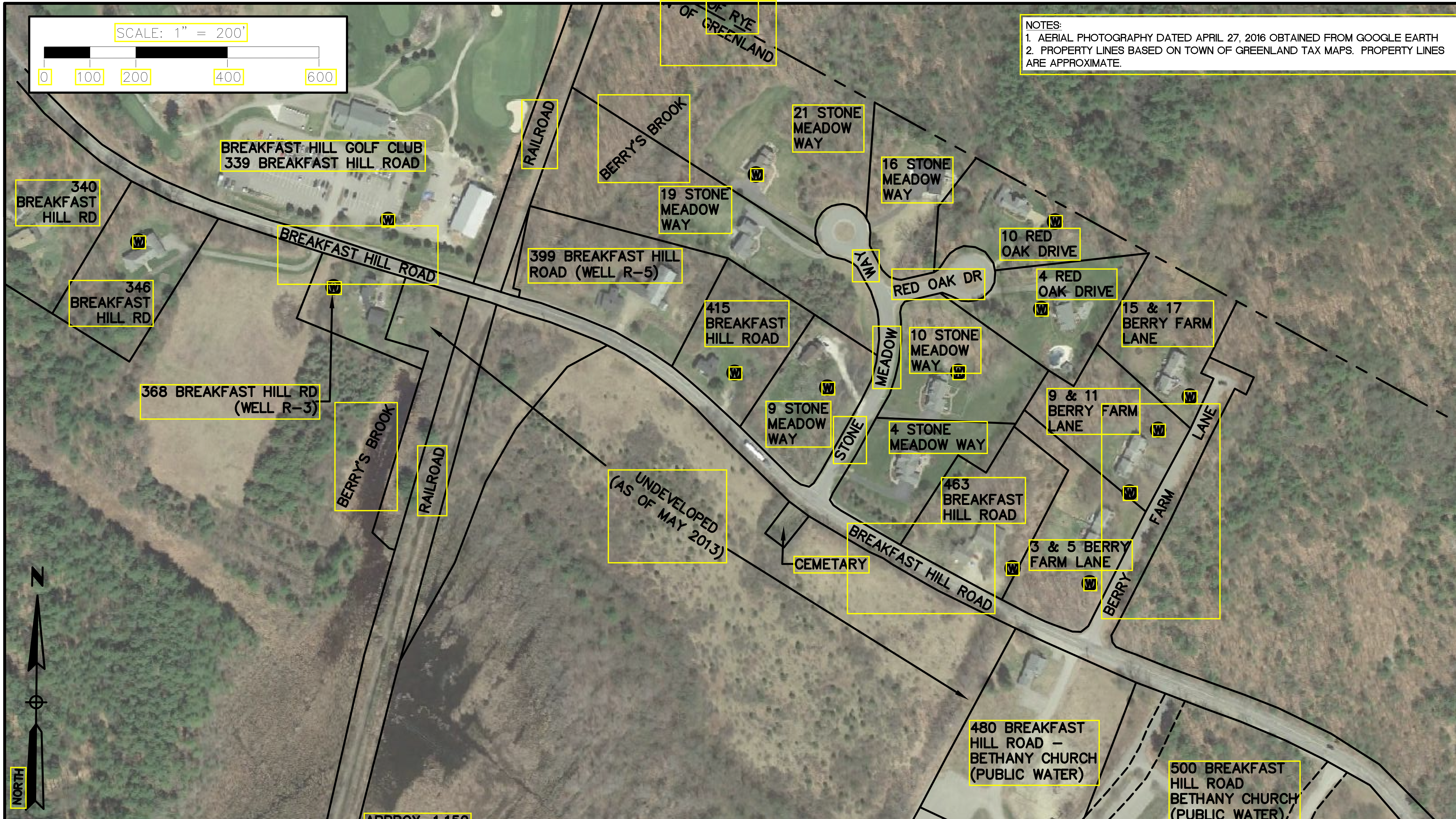
TABLE 1
Summary of Analytical Results for Off-Site Water Supply Wells
Coakley Landfill - North Hampton, New Hampshire

SAMPLE IDENTIFICATION	EPA	NHDES	EPA	25 FW	25 FW Post	25 FW	25 FW Dup	5 BFL	5 BFL	9 BFL	15 BFL	15 BFL	340 BHR	340 BHR	463 BHR	463 BHR
DATE SAMPLED	**CL**	**AGQS**	**MCL**	27-May-16	27-May-16	24-Jan-17	24-Jan-17	NA	26-Jan-17	25-Jan-17	NA	25-Jan-17	11-Jul-16	27-Jan-17	NA	24-Jan-17
VOLATILE ORGANIC COMPOUNDS																
Methyl tert-butyl ether (ug/L)	-	13	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene (ug/L)	-	1000	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-dioxane (ug/L)	3	3	-	<0.25	NA	<0.25	<0.25	NA	<0.25	<0.25	NA	<0.25	NA	<0.25	NA	<0.25
METALS																
Arsenic, total (mg/L)	0.01	0.01	0.01	<0.001	<0.001	<0.001	<0.001	NA	<0.001	<0.001	NA	<0.001	NA	<0.001	NA	0.006
Manganese, total (mg/L)	0.3	0.84	-	0.034J	0.029J	0.017	0.018	NA	**0.82**	0.007	NA	0.21	NA	0.01	NA	0.16
FIELD PARAMETERS																
Temperature (degrees Celcius)	-	-	-	10	NA	9	NA	NA	9	10	NA	10	NA	11	NA	10
pH (standard units)	-	-	-	7.8	NA	8.1	NA	NA	7	6.3	NA	7.4	NA	6.6	NA	7.7
Conductivity (uS/cm)	-	-	-	363	NA	292	NA	NA	550	212	NA	418	NA	140	NA	646
Dissolved Oxygen (mg/L)	-	-	-	< 0.5	NA	<0.5	NA	NA	<0.5	4	NA	<0.5	NA	1.2	NA	3
Turbidity (NTU)	-	-	-	< 5	NA	<5	NA	NA	<5	<5	NA	<5	NA	<5	NA	<5
Oxidation/Reduction Potential (mV)	-	-	-	-146	NA	-115	NA	NA	-4	189	NA	-1	NA	151	NA	-70
PERFLUORINATED CHEMICALS BY MODIFIED 537 - (ng/L)																
Date Sampled	**EPA HA**	**NHDES AGQS**		**25 FW**	**25 FW Post**	**25 FW**	**25 FW Dup**	**5 BFL**	**5 BFL**	**9 BFL**	**15 BFL**	**15 BFL**	**340 BHR**	**340 BHR**	**463 BHR**	**463 BHR**
				11-Jul-16	NA	24-Jan-17	24-Jan-17	11-Jul-16	26-Jan-17	25-Jan-17	13-Jul-16	25-Jan-17	11-Jul-16	27-Jan-17	11-Jul-16	24-Jan-17
Perfluorobutanesulfonic acid (PFBS)	---	---		<16	NA	<8	<8	<16	<8	<8	<16	<8	<16	<8	<16	<8
Perfluoroheptanoic acid (PFHpA)	---	---		<16	NA	<8	<8	<16	<8	<8	<16	<8	<16	<8	<16	<8
Perfluorohexanesulfonic acid (PFHxS)	---	---		<8	NA	<8	<8	<8	<8	<8	<8	<8	<8	<8	11	<8
Perfluorooctanoic acid (PFOA)	70	70		<8	NA	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
Perfluorononanoic acid (PFNA)	---	---		<8	NA	<8	<8	<16	<8	<8	<16	<8	<16	<8	<16	<8
Perfluorooctanesulfonic (PFOS)	70	70		<16	NA	<8	<8	<8	<8	<8	<8	<8	<8	<8	8.1	<8
Combination of PFOA and PFOS	---	70		ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.1	ND

It should be noted that 3 and 5 Berry Farm Lane share one well, 9 and 11 Berry Farm Lane share one well, and 15 and 17 Berry Fram Lane share one well.

FIGURES 1 AND 2

SITE PLAN – RESIDENTIAL WELL SAMPLING



PROJECT TITLE: SITE PLAN FOR RESIDENTIAL WELL SAMPLING FOR PROPERTIES IN GREENLAND, NH	DWG: FIGURE 1	BY: TND	REV:	DESCRIPTION:
SHEET TITLE: COAKLEY LANDFILL - NORTH HAMPTON, NH	JN: 10424.008	DATE: SLY	REV DATE:	DESCRIPTION:
	SCALE: 1"=200'	APPROVED BY: SLY	ISSUE:	
		CHECKED BY:	ISSUE DATE:	

CES INC
Engineers • Environmental Scientists • Surveyors

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PROJECT TITLE: SITE PLAN FOR RESIDENTIAL WELL SAMPLING FOR PROPERTIES IN GREENLAND, NH	DWG: FIGURE 2	BY: TND	CES INC ENGINEERING • SURVEYING • PLANNING • SCIENCES
		DATE: 2016.06.21	
SHEET TITLE: COAKLEY LANDFILL - NORTH HAMPTON, NH	JN: 10424.008	REV:	
	SCALE: 1"=300'	REV DATE:	

CES INC

ATTACHMENT 1

FIELD SAMPLING PROTOCOL

FIELD SAMPLING PROTOCOLS TO AVOID CROSS-CONTAMINATION AT PERFLOURINATED COMPOUNDS (PFCS) SITES
SOP - PFCs

This Standard Operating Procedure (SOP) *Groundwater Sampling – Perfluorinated Compound Field Sampling Protocol*, provides a general framework for collecting groundwater samples at the Coakley Landfill Superfund Site in North Hampton and Greenland, New Hampshire that will minimize the potential for cross-contamination during sampling. CES, Inc.'s (CES) anticipated sample collection methods for groundwater are generally consist with those in the Sampling and Analysis Plan, Coakley Landfill Superfund Site (Revision 1, September 2015).

PURPOSE

The purpose of this SOP is to provide groundwater sampling protocols when sampling for perfluorinated compounds (PFCs). This SOP also describes a tiered approach that should be used to assist with field decisions. Sampling specific SOPs (i.e. Low Flow Sampling Using a Peristaltic Pump, SPO #4, and Sampling with a Bucket Type Bailer, SOP #3) should also be reviewed prior to conducting field sampling activities at the Coakley Landfill.

SCOPE

This procedure applies to all CES personnel and subcontractors who collect or otherwise handle samples of groundwater for analysis of PFCs. This SOP should be reviewed by all on-site personnel prior to implementation of field activities.

GENERAL

Given the low detection limits associated with PFC analysis and the many potential sources of trace levels of PFCs, field personnel are advised to act on the side of caution by strictly following these protocols, frequently replacing nitrile gloves, and rinsing field equipment to help mitigate the potential for false detections of PFCs. Specific items related to field sampling are discussed below.

QUALITY ASSURANCE/QUALITY CONTROL

Quality Assurance/Quality Control (QA/QC) samples (i.e trip blanks, field blanks, equipment blanks, duplicate samples, and matrix spike/matrix duplicate samples) will be collected as outlined in Table 4-3 of the SAP. Equipment blanks will be collected on the water level meter and disposable bailer using laboratory certified "PFC free" water.

PROCEDURES/CONSIDERATIONS

The following are procedures/considerations to be made during field activities at the Coakley Landfill during PFC sampling. A summary of the prohibited and acceptable items for PFC sites is included below.

Item Category	Allowable Items	Prohibited Items
Tubing	High-density polyethylene (HDPE) or silicon materials	Teflon® and other fluoropolymer containing materials
Decontamination	Alconox® and/or Liquinox®,potable water followed by deionized rinse	Decon 90
Sample Storage and Preservation	HDPE or polypropylene bottles, regular ice	LDPE or glass bottles, PTFE-or Teflon®-lined caps, chemical (blue) ice packs
Field Documentation	Plain paper, metal clipboard, Sharpies®, pens	Waterproof/treated paper or field books, plastic clipboards, non-Sharpies® markers, Post-It® and other adhesive paper products
Field Clothing	Well-laundered (more than six times washed after purchase) clothing made of synthetic or cotton material, no fabric softener	Clothing (including boots) made of Gore-TexTM or other synthetic water resistant and/or stain resistant material, Tyvek® material
Personal Care Products (for the day of sampling)	**Sunscreens –** Alba Organics Natural Sunscreen, Yes To Cucumbers, Aubrey Organics, Jason Natural Sun Block, Kiss My Face, Baby sunscreens that are "free" or "natural" **Insect Repellents** – Jason Natural Quit Bugging Me, Repel Lemon Eucalyptus Insect repellant, Herbal Armor, California Baby Natural Bug Spray, BabyGanics **Sunscreen and insect repellant** – Avon Skin So Soft Bug Guard – SPF 30 Lotion	Cosmetics, moisturizers, hand cream and other related products
Food and Beverage	Bottled water and hydration drinks	Pre-packaged food, fast food wrappers

Notes:
If an item will come in direct contact with field samples, then it may be necessary to have the products analyzed for PFCs to confirm that a specific batch or lot number does not contain PFCs. If an item is not expected to come into direct contact with field samples, then the product Safety Data Sheet and/or manufacturing specifications may be reviewed to determine if the item is PFC-containing by checking for any chemicals with "fluoro" in the name or the acronyms PTFE, TPE, FEP, ETFE, or PFA.

Field Equipment

Samplers will use peristaltic pumps for groundwater sample collection at depths shallower than 25 feet. Tubing will consist of dedicated LDPE and silicon tubing previously installed in Site wells. Groundwater sample collection at depths greater than 25 feet will be collected utilizing bailers and twine made of acceptable materials.

Equipment Decontamination

Field sampling equipment, including water level indicators, that are utilized at each sample location will require cleaning between uses. The SAP dictates that we use Alconox®, which is an allowable item for PFC sampling. Water used for the final rinse during decontamination of sampling equipment will be laboratory certified "PFC-free" water.

Visitors
Visitors to the site are asked to remain outside of the exclusion zone during sampling activities.

ANALYTICAL

Groundwater samples will be analyzed for PFCs using EPA Method 537 with a 20 to 30-day turnaround time. A detection limit of at least 20 parts per trillion will be used. Results will be compared the current health standards. If results meet or exceed these provisional standards or any promulgated standard at the time, sampling will be expanded to other wells within the Groundwater Management Zone and residential homes.

Samples will be tested for the following PFCs:

- Perfluorbutanesulfonic acid (PFBS)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluorooctanoic acid (PFOA)
- Perfluorononanoic acid (PFNA)
- Perfluorooctanesulfonic acid (PFOS)