

IMMEDIATE RESPONSE ACTION
(INTERIM) STATUS REPORT #4

FORMER AEROVOX FACILITY
740 BELLEVILLE AVENUE
NEW BEDFORD, MA
RTN 4-0601

Prepared for:

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June 2015



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LIST OF ACRONYMS & ABBREVIATIONS

% RE	Percent Reference Emitter
ug/l	micrograms per liter
ACO	Administrative Consent Order (MassDEP-AVX Agreement)
AVX	AVX Corporation
BGS	Below ground surface
CAM	Compendium of Analytical Methods
City	City of New Bedford
CSA	Comprehensive Site Assessment
CSM	Conceptual Site Model
CVOC	Chlorinated Volatile Organic Compound
DNAPL	Dense Non-Aqueous Phase Liquid
EPA	United States Environmental Protection Agency
Frac	Fractionation
FLUTE	Flexible Liner Underground Technology
GPM	Gallons per Minute
HPFM	Heat Pulse Flow Meter
IRA	Immediate Response Action
ITRC	Interstate Technology Regulatory Council
LSP	Licensed Site Professional
mg/kg	Milligrams per kilogram
MALM	Mise-a-la-Masse
MassDEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
MHW	Mean High Water
MIP	Membrane Interface Probe
mm	millimeter
MSL	Mean Sea Level
NAPL	Non-aqueous Phase Liquid
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene or Perchloroethene
PID	Photoionization Detector
PPE	Personal Protective Equipment
RTN	Release Tracking Number
TCE	Trichloroethene
TOC	Total Organic Carbon
TSS	Total suspended solids
UCL	Upper Concentration Limit
URS	URS Corporation
UTM	Universal Transverse Mercator
UVOST	Ultraviolet Optical Screening Tool
WSB	Wood Street Bridge
ZEBRA	Zebra Technical Services.

1.0 INTRODUCTION

On behalf of AVX Corporation (AVX), AECOM has prepared this *Immediate Response Action (IRA) Status Report* (Status Report) for the Disposal Site known as the former Aerovox Facility (Site) located at 740 Belleville Avenue in New Bedford, Massachusetts. On April 10, 2014, URS Corporation (URS) notified the Massachusetts Department of Environmental Protection (MassDEP) of the presence of dense non-aqueous phase liquid (DNAPL) at a thickness of greater than 0.5-inches per 310 CMR 40.0313(1). AECOM (formerly URS) submitted an IRA Plan on June 10, 2014 and the first IRA Status Report on August 6, 2014. In its letter of September 12, 2014, MassDEP requested an expedited (interim) IRA Status Report and established an interim deadline of October 8, 2014 for submittal of IRA Status Report #2. AECOM submitted interim IRA Status Report #2 as requested on October 8, 2014 and submitted IRA Status Report #3 on February 4, 2015. In its letter of May 8, 2015, MassDEP again requested an expedited (interim) IRA Status Report and established an interim deadline of June 15, 2015 for submittal of this interim IRA Status Report #4. Note that the next Massachusetts Contingency Plan (MCP) scheduled IRA Status Report (now IRA Status Report #5) submittal is due on August 4, 2015.

MassDEP orally approved an IRA consisting of assessment actions pursuant to the MCP, 310 CMR 40.0414(1), including assessment of the extent and recoverability of DNAPL in the vicinity of MW-15D and removal actions pursuant to the MCP 310 CMR 40.0414(2) including utilizing low-energy methods (bailing and pumping) to remove DNAPL from MW-15D and from any newly installed monitoring wells that exhibit DNAPL thickness greater than ½ inch. The IRA condition is being addressed under the existing Release Tracking Number (RTN) for the Site, 4-0601.

The site assessment and remediation under Massachusetts General Law Chapter 21E and the MCP is subject to the Administrative Consent Order and Notice of Responsibility (ACO) between AVX and the MassDEP and the Massachusetts Office of the Attorney General, effective as of June 3, 2010 (ACO-SE-09-3P-016).

Figure 1, Site Location Plan, depicts the Site location with respect to the surrounding topography and features and **Figure 2**, Site Plan, presents the historic investigation locations across the Site. The coordinates of the Site (referenced to the corner of Belleville Avenue and Hadley Street) are latitude 41° 40' 25.12" N and longitude 70° 55' 13.84" W (UTM coordinates 340135.53m E and 4615326.34m N). **Figure 3** provides a detail of the IRA area.

The Site as defined by the ACO includes any place or area where a release of oil and/or hazardous material at or from the property which occurred before the ACO Effective Date (June 3, 2010) has come to be located, excepting those places or areas that are part of the New Bedford Harbor Superfund Site including land area, bank or water body located seaward of the sheet pile wall previously installed at the property or seaward of the mean high water (MHW) level at the property and running along the MHW level in a northward and southward direction

from the property. Per this definition, the Disposal Site as currently delineated extends to the following locations:

- The existing Aerovox western property line along Belleville Avenue,
- The existing sheet pile wall (inclusive of the wall itself) running generally in a north-south orientation along the Acushnet River;
- North of the northern boundary of the property, onto the Precix property at 744 Belleville Avenue; and
- South of the southern boundary of the property, onto the Titleist property at 700 Belleville Avenue.

Phase II Comprehensive Site Assessment (CSA) activities are ongoing at the Site, and it is likely that, based on the results of those activities, the boundaries of the Site to the north and south will be modified from what is described above. Additional information and details regarding the Disposal Site history, a description of the release and potential receptors were provided in the Phase I and Tier Classification submittal and the IRA Plan, and are not repeated in this IRA Status Report.

2.0 RELEVANT CONTACTS (310 CMR 40.0424(a))

The property is owned by the City of New Bedford, Massachusetts (the City). Contact information for the City's representative is:

Ms. Michele Paul
Director of Environmental Stewardship
City of New Bedford
133 Williams Street, Room 304
New Bedford, MA 02740
Phone Number: 508-991-6188

The person assuming responsibility for conducting IRA activities is:

Mr. Evan Slavitt
AVX Corporation
801 17th Avenue South, P.O. Box 867
Myrtle Beach, SC 29578
Phone Number: 843-946-0714

The Licensed Site Professional (LSP) for the Site is:

Ms. Marilyn Wade, LSP No. 4513
AECOM
1155 Elm Street, Suite 401
Manchester, NH 03101
Phone Number: 603-606-4824

3.0 STATUS OF IMMEDIATE RESPONSE ACTIONS (310 CMR 40.0425(3)(a))

3.1 SUMMARY OF ACTIVITIES SINCE LAST STATUS REPORT – IRA

In the four months since submittal of the last (February 2015) IRA Status Report, the following activities have been conducted at the Site that are directly related to the IRA. These activities are either a continuation of ongoing IRA steps, or additional steps initiated during the four-month period, as noted.

- Ultra-Violet Optical Screening (UVOST) with direct push borings (initiated);
- Resistivity testing (initiated);
- Resistivity mise-a-la-masse testing (initiated);
- DNAPL gauging and removal in monitoring wells MW-15D and MW-15B (ongoing);
- DNAPL physical testing and mobility evaluation (ongoing); and
- Water level measurements and limited groundwater sampling (ongoing).

Each of these IRA activities is described further in the sections below. Note that additional activities related to completion of the Phase II CSA were also undertaken since the prior IRA Status Report, and per MassDEP's request, these activities are summarized in Section 5.

3.2 ULTRA-VIOLET OPTICAL SCREENING TOOL (UVOST)

Given the relative proportion of chlorinated ethenes, chlorinated benzenes and polychlorinated biphenyls (PCBs) found in the Site DNAPL sample collected from the MW-15 monitoring well cluster, AECOM collected a sample of the DNAPL to evaluate a similar subsurface detailed assessment tool, based on a Geoprobe platform, which uses laser induced fluorescence to identify the presence of polynuclear aromatic hydrocarbons found in petroleum based NAPL. This sample of DNAPL was submitted to ZEBRA Technical Services (ZEBRA) to evaluate whether UVOST equipment was capable of detecting the PCB carrier oil. A fluorescence waveform specific to the site DNAPL (an orange color) was obtained prior to field mobilization to serve as an aid in identification of site DNAPL by the UVOST equipment. The UVOST percent response for this pure DNAPL sample was 333.3%.

The objective of the UVOST investigation was to identify subsurface DNAPL on the eastern side of the Site based on the site-specific DNAPL signature. On March 30, 2015, the UVOST investigation was initiated by ZEBRA, under oversight of AECOM. The initial UVOST locations were spaced approximately 20-25 feet apart in a linear fashion north of the Site and immediately adjacent to the sheet pile wall on the eastern boundary of the Site. In addition, a perpendicular transect was planned on the northern side of Hadley Street, along the section of the sheet pile wall in the southeast corner of the Site that runs east-west. Where UVOST data along these planned transects indicated the likely presence of DNAPL, additional UVOST points were added

to identify and delineate these potential DNAPL areas. Refer to **Figure 2** for the UVOST locations. One UVOST probe was advanced adjacent to a former boring location designated MIP-11 (a soil boring and MIP log location), and two UVOST probes were advanced adjacent to B08B, where a soil sample collected from the 0-2 foot depth interval contained a PCB concentration of 1,000 milligrams per kilogram (mg/kg).

In general, AECOM used the signature waveform and associated color, and the percent reference emitter (%RE) to evaluate the UVOST data. As a rule of thumb, since the pure DNAPL %RE was 333.3%, AECOM used a conservative cutoff of 30%RE (corresponding to 10% of the pure DNAPL %RE) to identify probable DNAPL in the subsurface. Of the 48 UVOST locations, ten were identified with %RE values greater than 30% (UV-08, UV-09, UV-17, UV-34, UV-35, UV-38, UV-39, UV-40, UV-42 and UV-44), and three of those locations had %RE values greater than 100% (UV-8, UV-9 and UV-17). Of the ten locations with %RE values above 30%, seven of the detections (UV-17, UV-35, UV-38, UV-39, UV-40, UV-42 and UV-44) were shallow (less than 15 feet below the ground surface [bgs] and above the inferred top of peat), two (UV-08 and UV-09) were located greater than 15 feet bgs and one location (UV-34) had %RE values above 30% at both shallow and deep depth intervals. The locations with greater than 30% RE are concentrated in two areas of the Site: (1) the northeast corner, near the former northern drainage ditch terminus and MW-15D/-15B (UV-8 [~23.5-24.5 feet bgs], UV-9 [~18-19 feet bgs], UV-34 [~5-6 feet bgs and ~21-22 feet bgs], UV-35 [5.5-6.5 feet bgs], and UV-42 [~6-6.5 feet bgs]) where DNAPL is currently present; and (2) near the center of the Site along the eastern property boundary, near the former southern drainage ditch discharge point (UV-38 [~4-5.5 feet bgs], UV-39 [~7.5-8 feet bgs], UV-40 [~2.5-4 feet bgs], and UV-44 [~5.25 – 6.25 feet bgs]). Note that only the northeast corner %REs (UV-08, UV-09 and UV-34) indicate the presence of DNAPL in deep overburden, which is consistent with the physical findings. Refer to **Appendix A** for the UVOST summary table and logs for each location and for a three-dimensional (3-D) representation of the UVOST data.

A 137%RE was the highest %RE measured at the Site. This measurement was collected from UVOST location UV-17, which was advanced just south of where the former southern drainage ditch discharged to the Acushnet River. This value was detected at a depth of 8.22 feet bgs. A geoprobe boring was advanced at this location for the purpose of soil collection, observation, and classification through the 5 foot to 10 foot depth interval. Samples were submitted for laboratory analysis of chlorinated volatile organic compounds (CVOCs) and PCBs from each one-foot interval from 5 feet bgs to 10 feet bgs. PCB concentrations ranged from 2,240 mg/kg in the estimated 5 foot to 6 foot interval to a maximum of 5,130 mg/kg in the estimated 7 foot to 8 foot interval. The 5 foot to 6 foot interval was classified as very fine to fine sand, with deeper intervals classified as peat. Subsequent UVOST points were advanced around UV-17 to delineate the extent of the impact (high %RE signal) in this vicinity.

Refer to **Table 4** for a summary of the soil analytical data and **Appendix B** for the complete soil laboratory analytical report for the UV-17 soil boring.

3.3 RESISTIVITY SURVEY

AECOM subcontracted Hager-Richter Geoscience, Inc. to perform an electrical resistivity survey of the eastern end of the Site. The objective of the electrical resistivity survey was to confirm the depth to bedrock and identify and delineate bedrock discontinuities that may serve as preferential pathways for migration of impacted groundwater. Three transects were proposed for the electrical resistivity survey. The proposed transects were oriented northeast-southeast across the eastern end of the Site, with the westernmost transect beginning in the northeast corner near MW-15D/-15B and extending southwest to the fence along Hadley Street; the second (middle) proposed transect was to begin just north of the MW-7A/-7/-7B cluster along the eastern property line, extending southwest to the fence along Hadley Street; and, the third (easternmost) transect was proposed to begin just north of the MW-2A/-2/-2B cluster, extending southwest to the fence along Hadley Street.

Dipole-dipole and Schlumberger resistivity arrays were used for collection of the transect data. However, due to the presence of the former building foundation, sheet pile wall, and several utilities near/below the transect lines, only the two western transect lines were completed in an abbreviated fashion. As discussed in the Hager-Richter report contained in **Appendix C**, due to the presence of metal utilities, the electrical resistivity survey was unable to reliably predict the depth of the bedrock surface or location of bedrock fractures at these two transects. As a result, the third transect proposed, which was closest to the existing sheet pile wall, was not attempted.

3.4 RESISTIVITY MISE-A-LA-MASSE SURVEY

Hager-Richter also conducted a mise-a-la-masse (MALM) survey in the northeast corner of the Site. The MALM method is also called the "charged body potential method." The objective of the MALM survey at the Site was to identify the lateral extent of contaminated groundwater associated with the DNAPL present in MW-15D. The MALM survey does this by mapping the distribution and magnitude of self-potentials caused in an electrically conducting body due to the injection of electrical current in the body.

The MALM survey was conducted over a 100-foot by 100-foot area divided into a 10 point by 10 point grid in the northeast corner of the property. A current electrode was placed at the bottom of monitoring well MW-15D, within the DNAPL present at the bottom of the well. A second current electrode was placed approximately 775 feet south-southwest of MW-15D on the Titleist property. Two additional electrodes were used; one was placed approximately 300 feet north of MW-15D, and the second was placed at each of the 100 grid points.

Hager-Richter's interpretation of the MALM survey indicates that there is a conductive body associated with the DNAPL present in MW-15D. This area extends approximately 60 feet to 70 feet south and west from MW-15D. Due to the sheet pile wall presence north and east of MW-15D, the extent of the conductive body in those directions cannot be determined. Note that the MALM survey indicates only lateral extent of the conducting body and inferences on vertical extent cannot be made. The MALM survey is discussed in the Hager-Richter report in **Appendix C**.

3.5 DNAPL GAUGING AND REMOVAL

Beginning on May 19, 2014, AECOM has conducted bi-weekly DNAPL recovery from monitoring well MW-15D. On September 29, 2014, DNAPL was identified in monitoring well MW-15B for the first time. Prior to this measurement, only a trace of DNAPL had been observed in this well (weighted string was intermittently stained, but not continuously at bottom of string). Beginning on October 6, 2014, bi-weekly DNAPL recovery has also been conducted at monitoring well MW-15B. Gauging events have occurred on nine occasions since the last event (1/6/015) discussed in IRA Status Report #3.

During each DNAPL recovery event, the thickness of DNAPL in the well is first measured using a weighted string. Once the measurement is recorded, dedicated polyethylene tubing is then deployed to the bottom of the well and the discharge end connected to a peristaltic pump. DNAPL that is located at the bottom of the well is then extracted using the peristaltic pump and discharged into a 5-gallon bucket. Pumping is continued until there is no longer any visible evidence of DNAPL being discharged from the tubing. The discharge consists of a mixture of groundwater and DNAPL extracted from the well. By carefully decanting the water collected into a separate container, the volume of the recovered DNAPL is then measured by decanting into a graduated beaker.

During the nine recovery events that have occurred since January 6, 2015, the average thickness of DNAPL measured in MW-15D was 3.3 inches, with a minimum measured thickness of 1 inch and a maximum measured thickness of 6 inches. The total volume recovered from MW-15D during these nine events was approximately 605 milliliters (ml) (0.16 gallon). The total DNAPL recovered from MW-15D since initiation of recovery efforts in May 2014 is 2,661 ml (0.70 gallon).

The average thickness of DNAPL measured in MW-15B during this period was 3.4 inches, with a minimum measured thickness of 1.5 inches and a maximum measured thickness of 5.5 inches. The total volume recovered from MW-15B during these nine events is approximately 575 milliliters (ml) (0.15 gallon). The total DNAPL recovered from MW-15B since initiation of recovery efforts in September 2014 is 1,105 ml (0.28 gallon).

Refer to **Table 1** for a tabulated summary of DNAPL recovery by event and cumulative volumes for MW-15D and MW-15B. Graphs of DNAPL thickness and recovery volume per event, and cumulative recovery to date are included in **Appendix D**.

The recovered water/DNAPL mixture is stored in a 5-gallon bucket with lid which is then placed in a 55-gallon drum. The drum is stored in a secure drum shed with secondary containment located on the Site.

To date, measurable DNAPL has not been observed in any other well installed at the Site.

3.6 DNAPL ANALYSIS AND MOBILITY ASSESSMENT

As noted in the February IRA Status report, a composite DNAPL sample was collected on September 30, 2014 from the top of bedrock from monitoring well MW-15D and from within bedrock from monitoring well MW-15B and submitted for laboratory analysis for CVOCs, PCBs, and physical parameters including specific gravity, viscosity, surface tension and interfacial tension. The MW-15 well cluster is the only location where DNAPL has accumulated and pooled to the extent that it is measurable in these deep wells. Soil sampling in the vicinity of the MW-15 cluster did not indicate PCBs were present at concentrations that would be indicative of DNAPL in soils from elevations below the peat and above the EPA proposed bottom of dredging.

The DNAPL CVOC and PCB analyses indicate that five CVOCs (1,2,4-trichlorobenzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, tetrachloroethene and trichloroethene [TCE]) and two Aroclors (1242 and 1254) are present in the DNAPL. The concentration of these constituents in the September 2014 sample was similar to the concentrations detected in a DNAPL sample collected from MW-15D in March 2014. The analysis showed that the mixed DNAPL at the Site is comprised of chlorinated organic constituents and PCBs, as outlined in the following table. Based upon the analytical testing suite, the site-specific DNAPL collected from the MW-15 monitoring well cluster was reported to be comprised of approximately 55% by mass of chlorinated organics and PCBs, with the remaining composition estimated to be comprised of carrier oils. The normalized distribution of chlorinated-only compound, i.e., not including carrier oil, is as follows:

Table 3-1

Constituent	Normalized Percentage (%) By Weight
cis-1,2-Dichloroethene	0.2
1,4-Dichlorobenzene	0.4
Tetrachloroethene (PCE)	1.5
1,2,4-Trichlorobenzene	2.4
Trichloroethene (TCE)	3.6
Aroclor 1254	22.6
Aroclor 1242	69.3

These identified primary constituents and associated normalized constituent percentages were utilized to establish baseline physical properties of the mixed DNAPL collected from the MW-15 monitoring well cluster. The establishment of baseline physical DNAPL properties was required to evaluate the migration potential of DNAPL and, given the fact that DNAPL could only be

recovered from one monitoring well cluster at the Site (MW-15B/D), the properties of that DNAPL sample were employed in the calculations.

Physical properties (dynamic viscosity, fluid density, surface tension and interfacial tension) of the site-specific DNAPL sample were also obtained through laboratory analysis. Doble Engineering Company of Watertown, MA provided physical parameter results for viscosity, density and surface tension in January 2015, and these results were provided in the prior status report. Torkelson Geochemistry, Inc. of Tulsa OK provided physical parameter results for density, surface tension and interfacial tension in March 2015. These results are provided in **Appendix E**.

Based upon the make-up of the mixed DNAPL (chlorinated organics, carrier oils and PCBs), as well as site-specific DNAPL physical property testing, baseline DNAPL physical property data were established. The anticipated range of DNAPL physical property values employed within the mobility assessment are summarized in the following table, along with the range of values for each physical property parameter employed in various sensitivity analyses completed herein.

Table 3-2

DNAPL	Density (g/cc)	Viscosity (cp)	Interfacial Tension (dynes/cm)	Contact Angle (°)
Site-specific MW-15 DNAPL Sample	1.22	27.8	15	NA
Baseline DNAPL Parameters	1.22	27.8	15	37.5
Sensitivity Analysis for Baseline Values	1.18-1.44	25-40	5-25	20-75

NA = Not analyzed

Additionally, in order to support evaluations on the migration potential of DNAPL within the subsurface stratigraphy present at the Site, as well as the effects on DNAPL migration of the stratigraphy, the hydrogeologic properties for each identified geologic unit were established using site-specific data including potentiometric gauging data, hydrogeologic testing data and grain size distribution data. The following table summarizes the compiled grain size distribution data for the overburden materials at the Site and includes the mean grain size as well as the minimum and maximum grain sizes, which were employed in the DNAPL mobility evaluation (Grain size analytical results are provided in **Appendix B**).

Table 3-3

Geologic Unit	Mean Grain Size (mm)	Minimum Grain Size (mm)	Maximum Grain Size (mm)
Shallow Overburden	0.03968	0.03772	0.04163
Deep Overburden	0.01670	0.01328	0.01905

It is noted that the specified mean grain sizes for each designated stratigraphy were based upon a limited data set, however, are deemed sufficient for representation of the physical properties of the subsurface materials at the Site.

The pore radius, r , is directly related to grain size and was determined employing an established empirical relationship from Holtz and Kovacs (1981) as:

$$r = \frac{0.2 * D_{10}}{2}$$

where:

D_{10} = grain size representing 10% passing by weight

In addition to mean grain and pore sizes of the various media, site-specific data was evaluated and compiled in order to establish a range of horizontal gradients and vertical hydraulic gradients. Specifically, based upon the tidal influence of the Acushnet River at the Site, horizontal gradient reversal is observed for the overburden materials. That is, groundwater flow discharges to the river during low-tide and groundwater flows away from the river (i.e., to the west) during high-tide.

Additionally, both vertically upward and downward gradients were observed within the overburden (shallow to deep) and bedrock to overburden. The following table presents the hydraulic gradients established for the designated stratigraphic units at the Site, and served as baseline property data. Sensitivity of +/- 10% was applied to the gradients within the mobility assessment.

Table 3-4

Aquifer Unit	Horizontal Gradient (ft./ft.) [West to East]	Reverse Horizontal Gradient (ft./ft.) [East to West]	Vertical Gradient (ft./ft.) [upward]
Shallow Overburden	0.02282	0.00347	0.0086 (from deep overburden)
Deep Overburden	0.00232	0.00237	0.0042 (from bedrock)
Bedrock	0.00382	0.00352	NA

DNAPL Migration Potential

The potential for the emplaced DNAPL within the subsurface at the Site to migrate was evaluated using established empirical methodologies and site-specific hydrogeologic data as well as the established DNAPL baseline properties. The detailed calculations and results presented in this section are furnished in **Appendix E**. Further, the DNAPL mobility assessment was completed independent of site-specific chemical data, relying solely upon the established baseline DNAPL physical properties and the aquifer properties (e.g., grain size distributions, gradients).

For a surface introduced DNAPL, an evaluation of the critical DNAPL height required to penetrate the water table was completed utilizing methodologies outlined in Cohen and Mercer (1993), as follows:

$$z_n = \frac{2\sigma (\cos \varphi)}{r g \rho_n}$$

where:

z_n = critical DNAPL height

σ = interfacial tension

φ = contact angle

r = pore radius

ρ_n = DNAPL density

g = gravitational constant

Employing the shallow overburden physical properties, as the water table is encountered within this hydrogeologic unit at the Site, a DNAPL thickness of < 3 inches (2.98") is sufficient for the site-specific DNAPL within the unsaturated zone to enter the saturated zone, employing mean grain sizes and baseline DNAPL properties.

The next evaluation completed considered the potential for the vertical mobility of subsurface DNAPL at the Site. This evaluation included determination of stable DNAPL pool heights above each stratigraphy as well as the required DNAPL pool height or critical DNAPL height necessary to penetrate the underlying stratigraphy. From Cohen and Mercer (1993):

$$z_s = \frac{2\sigma (\cos \varphi)}{r_{host} g (\rho_n - \rho_w)}$$

where:

z_s = stable DNAPL height

σ = interfacial tension

φ = contact angle

r_{host} = pore radius of host medium

ρ_n = DNAPL density

ρ_w = groundwater density

g = gravitational constant

The stable DNAPL pool heights within the shallow and deep overburden are presented in **Figure E-1 (Appendix E)** for the calculated mean pore sizes. A range of stable pool heights are also calculated over the range of the observed means within the grain size distribution range for each aquifer for an assumed flat lying aquitard surface. Additionally, the sensitivity of the varied DNAPL properties is also presented. The results indicate that stable DNAPL pool heights of approximately one foot can be anticipated for the shallow overburden whereas stable pool heights in the deeper overburden materials could reach thicknesses of two to three feet, owed to the finer-grained characteristics of that unit as compared to the shallow overburden. The sensitivity evaluation indicates that grain size or pore size is less sensitive to stable DNAPL pool heights than altering DNAPL physical properties, as reflected in **Figure E-1**.

An evaluation of the critical DNAPL height required to penetrate the bedrock was also completed, after Cohen and Mercer (1993), as follows:

$$z_n = \frac{2\sigma (\cos \varphi)}{b g (\rho_n - \rho_w)}$$

where:

z_n = critical DNAPL height

σ = interfacial tension

φ = contact angle

b = fracture / aperture opening size in bedrock

ρ_n = DNAPL density

ρ_w = groundwater density

g = gravitational constant

The calculated critical DNAPL heights necessary to penetrate varying aperture opening sizes in bedrock are presented in **Figure E-2**. The findings indicate that for a bedrock aperture of 1 mm, the required DNAPL pool or body height to penetrate the bedrock is less than 1.5 cm. Therefore, DNAPL entry into the classified fractured bedrock is not limited at the Site.

Additionally, an evaluation of the lateral migration potential of emplaced DNAPL within the subsurface at the Site was completed. The evaluation employed determination of the critical horizontal gradient required to initiate migration of a contiguous DNAPL body (pool or globule) of varied assumed lengths, after Cohen and Mercer (1993), as follows:

$$i_c > \frac{2\sigma (\cos \varphi)}{r_{host} \rho_w g L}$$

where:

i_c = critical horizontal hydraulic gradient

σ = interfacial tension

φ = contact angle

r_{host} = pore radius of medium with DNAPL

ρ_w = groundwater density

L = contiguous DNAPL body length perpendicular to groundwater flow direction

g = gravitational constant

Figures E-3 and E-4 present the critical gradients required to be exceeded to mobilize a DNAPL body of various lengths for the shallow and deep overburden materials, respectively. Also presented in these figures is the sensitivity analysis based upon the range of mean grain sizes for each respective aquifer unit as well as DNAPL properties. The results of the critical gradient evaluation are summarized in the following tables and furnished in **Appendix E**.

Considering a contiguous DNAPL body with a length of one foot, the DNAPL may be mobilized at the following horizontal gradients:

Table 3-5

Aquifer	Critical Horizontal Hydraulic Gradient (ft / ft)
Shallow Overburden	0.2480
Deep Overburden	0.5892

Applying site-specific hydraulic gradients for each designated aquifer zone, the following table illustrates the size of the DNAPL body (length) that may presently be mobilized at the Site:

Table 3-6

Aquifer	DNAPL Body Length (feet)
Shallow Overburden (Gradient Towards Acushnet River)	10.9
Shallow Overburden (Reverse Gradient Away from Acushnet River)	71.5
Deep Overburden (Gradient Towards Acushnet River)	254
Deep Overburden (Reverse Gradient Away from Acushnet River)	249

The sensitivity analysis indicated that the range of varied DNAPL properties affects the determination of critical gradients greater than varying the mean grain sizes for each stratigraphy.

Lastly, an evaluation of the propensity of the site-specific DNAPL to migrate vertically was completed. Specifically, a determination of the required upward hydraulic gradient to arrest the vertical migration (e.g., sinking) of DNAPL was calculated, after Cohen and Mercer (1993):

$$i_v = \frac{(\rho_n - \rho_w)}{\rho_w}$$

where:

i_v = critical vertical hydraulic gradient

ρ_n = DNAPL density

ρ_w = groundwater density

The calculated critical vertical gradient required to prohibit the sinking of DNAPL at the Site was determined to be 0.22 ft/ft. Considering solely the site-specific vertical gradients from the deep to shallow overburden and the bedrock to deep overburden, the existing site-specific gradients are 25 and 53 times less than required, respectively, to limit the vertical migration (sinking) of DNAPL at the Site.

DNAPL Recoverability Potential

Regulatory guidance documents direct free product removal to the extent practical as an appropriate first remediation step (U.S. Environmental Protection Agency [EPA], 2003; Interstate Technology & Research Council [ITRC], 2004; MCP at 310 CMR 40.1003(7), 2014). Further, the decision to undertake DNAPL recovery should also include consideration of potential effects to the dissolved phase plume, point of compliance issues, DNAPL architecture issues in order to prohibit adverse DNAPL mobilization (U.S. EPA, 2003), and efficacy.

The DNAPL mobility evaluation indicates the potential for DNAPL to migrate horizontally and vertically, with very limited potential to pool, based upon the grains size results from the overburden materials and presumed aperture openings within the surface of the bedrock. Therefore, the likelihood of locating a contiguous DNAPL accumulation area that would support DNAPL recovery at the Site is minimal, which is supported by site-specific data that indicate limited DNAPL presence at a single monitoring well cluster location (MW-15B/D).

Notwithstanding the above, a DNAPL recoverability assessment was completed. Specifically, DNAPL recoverability was assessed through evaluation of design criteria for a site-specific DNAPL recovery well. A primary design objective for mass DNAPL recovery included achieving separate phase DNAPL recovery with associated groundwater extraction, in order to mobilize pooled and potentially residual DNAPL towards the recovery well location, and in order to limit the potential generation of a DNAPL emulsion.

The preliminary design to achieve separate phase recovery of DNAPL included determining the settling velocity of the DNAPL once it enters the recovery well and designing the recovery well to maintain in-well upward velocities less than the settling velocity of the DNAPL. While actual DNAPL entry into the well may be represented as globules, blebs, and droplets, the preliminary DNAPL recovery well was designed for a DNAPL droplet, which constitutes the likely smallest particle of DNAPL and, hence, a limiting design factor, consistent with the methodologies provided in Coll and Paschl (2013).

The preliminary design included site-specific inputs for DNAPL density and a range of both groundwater pumping rates and recovery well slot sizes. The results of the preliminary DNAPL recovery well design are presented in **Figure E-5** and include a 6-inch diameter recovery well, constructed with a 50-slot screen and operated at an associated groundwater extraction rate of less than approximately 4 gallons per minute (gpm). Such a well is anticipated to be capable of separate phase DNAPL recovery within the overburden materials at the Site, provided sufficient DNAPL is present. However, as noted, no appreciable DNAPL accumulation area (i.e., a contiguous DNAPL pool with a length equal to or greater than the DNAPL body length developed above) at the Site has been located to date. Further, the co-recovered groundwater would likely require treatment and discharge; therefore, the employment of groundwater re-circulation should be considered for this hypothetical design scenario.

DNAPL Migration Summary

Site data including DNAPL composition and physical property data, grain size distribution data, potentiometric and DNAPL gauging data and hydrogeologic testing data were employed in order to evaluate the mobility of DNAPL at the Site. Based upon the mobility assessment completed herein, supplemented with the known presence and horizons of DNAPL at the Site, the following summary is provided.

Surface distribution of DNAPL at the Site likely resulted in the immediate vertical migration of DNAPL to the water table. Once encountering the water table, DNAPL continued to sink through the overburden materials to its present locations. The potential for DNAPL accumulation above the peat zone was not evaluated; however, site-specific data indicating DNAPL detection at the base of the overburden materials as well as within shallow, fractured bedrock suggests that the peat zone is not pervasive or acting as an effective aquitard. Where present in sufficient thicknesses, the site data does suggest that localized DNAPL accumulation on top of or within the peat layer occurred. However, the peat layer at the Site has been described as variable in terms of degree of decomposition and thickness, pervasiveness and has been noted to contain layers of sands at random locations (GHR, 1983). More recent investigative studies undertaken by AECOM have indicated that the thickness of the peat is less than a foot, down to 0.3 feet at some locations along the eastern portions of the Site. These reported findings represent an additional line of evidence that the peat layer does not constitute a significant barrier to the vertical migration of DNAPL.

The lack of a pervasive aquitard or fine-grained stratigraphy at the Site suggests that vertical DNAPL migration was not prohibited and that DNAPL likely entered openings (fractures or apertures) in the bedrock as DNAPL, and is likely to continue to invade deeper pore spaces

under the influence of gravity until a stratigraphic unit with sufficient capillary resistance is encountered (Cohen and Mercer, 1993).

Within the saturated zone, lateral DNAPL mobility was determined to have been possible under site hydraulic gradients. Specifically, the tidally-influenced Acushnet River results in periodic horizontal gradient reversals which likely resulted in episodic migration of subsurface DNAPL within the saturated zone both towards and from the river during the vertical migration of the DNAPL to bedrock. This effect likely resulted in the development of an appreciable area of residual DNAPL at the Site, that is, DNAPL present as disconnected ganglia trapped in pore spaces by tensions generated by the interactions between DNAPL, groundwater and the aquifer media. Residual DNAPL is often difficult to locate and largely unrecoverable.

Dissolution of the residual DNAPL source during its migration to its present locations is likely ongoing. Residual DNAPL saturation of available pore space by in porous media can be between 5 to 30 percent or higher (Kueper, B.H.; and K. L. Davies, 2009), leading to persistent dissolved phase plumes.

As noted, the lack of a suitable aquitard at the Site and the presence of DNAPL within the deep overburden as well as bedrock suggest that the DNAPL migration at the Site is in the intermediate or late stage of migration, as defined by the ITRCs Integrated DNAPL Site Strategy document (ITRC, 2011). This is supported by several site-specific observations including: the inability to recover consistent volumes of DNAPL from those site wells in which it is detected; the presence of DNAPL within the lowest portions of the unconsolidated materials beneath the Site; the presence of DNAPL within the bedrock at the Site; the presence of the higher concentrations in both saturated soils and groundwater at deeper portions of the overburden than in the shallower overburden; and the limited presence of detectable DNAPL accumulations within the source zones.

These observations are supported by alternate industry studies that describe DNAPL sites in early stages of migration, and find that they are characterized by higher pore saturations resulting from a more pervasive DNAPL that spreads and sinks through developed short-term fingers and pipes, which dissolve into the entire thickness of the aquifer giving the impression of a single, thick contaminant plume in the groundwater (Anderson, M.R., Johnson, R.L., and Pankow, J.F., 1992). The vertically-discrete sampling network at the Site suggests clear partitioning of impacts between the shallow and deep overburden materials, that is, the highest dissolved phase concentrations are present in the deeper overburden materials where the DNAPL has migrated, providing an additional line of evidence that the DNAPL migration within the overburden is beyond early stage and more aptly defined as intermediate or even late stage.

3.7 GROUNDWATER AND SURFACE WATER ELEVATION DATA

In Winter 2015, the Acushnet River staff gauge was destroyed. In lieu of the staff gauge, AECOM has painted and surveyed a mark on the Wood Street bridge over the Acushnet River. This location is approximately 1,300 feet north of the Site. On May 28, 2015, AECOM completed a synoptic groundwater and surface water gauging event, including the Wood Street bridge (WSB) mark. This survey mark will be incorporated into future synoptic gauging events. In

addition, a monitoring well identified on the northeast corner of the Titleist property (designated as MW-TITL-01) was surveyed and gauged.

The May 2015 gauging event was initiated approximately 30 minutes prior to the predicted low tide in New Bedford Harbor, and was completed approximately 30 minutes thereafter. The average depth to groundwater for the shallow overburden monitoring wells was 5.63 feet below the measuring point, with the minimum and maximum depths to groundwater of 2.22 feet (MW-2A) and 10.76 (GZ-3). The average, minimum, and maximum depth to groundwater in the deep overburden wells was 6.19 feet, 2.30 feet at MW-2, and 11.31 feet at MW-5, respectively. For the bedrock monitoring wells, the average depth to groundwater was 6.21 feet, and the minimum and maximum depths to groundwater were 3.23 feet and 9.91 feet, respectively. Refer to **Table 2** for a summary of the gauging data.

Groundwater potentiometric contour maps were constructed with the May 2015 data. The shallow groundwater potentiometric surface map indicates that groundwater flow on the east end of the Site is to the west, away from the Acushnet River. This indicates that even though the surface water elevation is low as a result of the tidal cycle, water above the peat layer behind the existing sheet pile wall is slow to respond to changes in the tide. This is in contrast to groundwater on the eastern two-thirds of the Site which is quicker to respond to tidal changes, likely due to the absence of peat across much of this area.

The deep overburden contour indicates groundwater flow to the east, toward the Acushnet River. Similarly, the potentiometric surface for the bedrock wells indicates decreasing pressure head across the Site from west to east. Refer to the May 2015 potentiometric contour maps in **Appendix F**.

4.0 SUMMARY OF DNAPL IRA FINDINGS TO DATE

In its May 8, 2015 letter requesting this Interim IRA Status Report, MassDEP indicated that certain regions of the Site should in its opinion be categorized either as “Potential Source Zones” or “Confirmed/Probable Source Zones” based on the referenced 2009 technical publication by Kueper and Davies. It should be noted that the reference is one of several published articles regarding DNAPL, and is not a regulatory policy or guidance document. Furthermore, the characterization of an area or volume of soil within the Site as a DNAPL source zone simply means that, per the definition in the article, it has a volume that contains residual or pooled DNAPL. It does not imply that DNAPL is or may migrate within or from that zone, or that such zone’s contribution to a dissolved phase will necessarily contribute to an unacceptable site risk. The stage of the DNAPL zone present at the Site (early, middle or late), and whether that DNAPL is stable, whether it has micro-scale mobility and whether it is contributing to an expanding, stable or contracting dissolved phase plume are the more important and relevant DNAPL zone characteristics that need to be evaluated under the MCP (310 CMR 40.1003(7)).

4.1 CONFIRMED, PROBABLE AND POTENTIAL SOURCE ZONES

The Keuper and Davies publication suggests eight potential methods (designated A through H) that can be used, where appropriate, to provide lines of evidence that a DNAPL source zone exists, and further suggests that line of evidence “A,” actual observation of NAPL, or a calculated “B” value of soil concentrations greater than the authors’ defined threshold saturation, necessarily indicates a confirmed zone. The referenced 2009 publication also suggests that some qualitatively evaluated combination of other lines of evidence, including site use and history, soil and groundwater concentrations, may also lead to a confirmed/probable conclusion. As far as potential source zones, the publication suggests that any line of evidence, however weak, could be indicative of a potential source. MassDEP, in its letter, has applied the Keuper and Davies methods to make sweeping inferences that large tracts of the Site constitute source zones, many of which are not supported by the data collected to date.

Based on data collected to date, the following is noted:

- MassDEP indicated that the northwest corner of the building footprint beneath the former impregnation and pump rooms should be considered a confirmed/probable source zone based on historic sampling beneath these areas dating back to the 1980s and 1990s. The Phase II CSA data refutes this assertion. Borings collected throughout the length and width of the former building footprint do not reveal elevated levels of DNAPL constituents in soil, and in fact only one boring, B02A, had PCBs detected above the 100 mg/kg UCL level (335 mg/kg just below the slab). None of the borings laterally or with depth revealed soil impacts indicative of a source zone. There is no basis to characterize as a source and define remediation to address a source using data that is decades old and that has not been reproduced during the Phase II CSA.

- MassDEP indicated that shallow soils in the area adjacent to the Acushnet River from the central to the southeastern corner of the property should be considered a confirmed/probable source area, again based on 1980s data. AECOM has completed multiple “H” lines of evidence in this area, including membrane interface probe (MIP) borings every fifty linear feet along the waterfront, UVOST borings every 25 feet along the waterfront, and soil borings and well installation with soil sampling. At two locations, B09D (roughly 45 feet in from the shore), and B10C (roughly 55 feet in from the shore), PCBs were found above the Upper Concentration Limit (UCL) in the top two feet immediately beneath the pavement, but these soils are located in isolated locations within the vadose zone, and lack a driving force to reach groundwater or the river. Boring location MIP-23 did indicate soil concentrations above the UCL from the surface down to the peat layer, and NAPL blebs were observed in the soil interval from 4 to 6 feet bgs, but the explorations surrounding this boring, including the MIP and UVOST borings, did not indicate a widespread or contiguous NAPL area. This DNAPL source zone is confined to a small area isolated above the peat and behind the existing sheet pile wall in the vicinity of MIP-23.
- MassDEP indicated that the entire northeast corner of the Site is a confirmed source zone. We do not disagree. The MIP work, UVOST, MALM, soil borings and wells MW-15D and MW-15B confirm that this source area is confined to a zone approximately sixty to seventy feet in diameter. The shallow soils (fill material above the peat), deep overburden and bedrock in this location contain or likely contain pooled or residual DNAPL.

The lines of evidence (soil borings and analytical results, MIP, UVOST and MALM results and site history) do not support that the remaining areas of the Site, including the area under the building footprint and the adjacent parking lot areas are potential source zones, with the following exceptions:

- North of the former building, the lines of evidence suggest a potential source zone in the vicinity of boring MIP-11 in shallow soils (0-2' bgs, PCBs only) immediately under the pavement and in deep soils (24-27' bgs, CVOCs only). This is within the former northern building ditch area.
- In the central area of the Site, where the former loading dock was located, soil sampling from the area surrounding boring B04B indicates a potential or possibly a historic DNAPL source zone. This area has little overburden (bedrock is shallow), the concentrations drop off laterally in all directions and the potentially-impacted area is roughly fifty feet in diameter.
- Based on the UVOST response at location UV-17 and subsequent sampling at this location, near where the southern building ditch discharged to the river, a small area

of roughly 35 feet in diameter and down to the top of the peat layer indicates a probable DNAPL source zone.

4.2 EXISTING BARRIER EFFECTIVENESS

In its letter, MassDEP requested that the data provided in this IRA Status Report include an evaluation of the effectiveness of the existing sheet pile wall in serving its purpose. To do this, the original purpose of the existing sheet pile wall needs to be understood. As noted in the 1983 GHR Evaluation of Remedial Alternatives Report and the Gushue & Cummings 1984 On-Site Containment of Contaminated Soils Report that are part of the EPA Administrative Record for the New Bedford Harbor, the four objectives of the cap and containment built at the time were “1. Minimization of the potential surface erosion of soils containing PCBs; 2. Minimization of the potential air transport of PCBs from the surface of the study area; 3. Minimization of rainfall infiltration through contaminated soil, and 4. Minimization of groundwater contact with and groundwater discharges from the contaminated soils.” The two reports further indicated that “The fourth objective would be achieved by minimizing the flow of estuarine water into the perched water system by installing a vertical barrier along the edge of the river.” Thus, while it is accurate to say that the sheet pile wall was installed to mitigate the migration of contaminants to the river, it was intended only to address the shallow perched aquifer above the peat layer and the flow of river water into and out of this layer.

In the development of the EPA-approved cap and containment monitoring and maintenance plan as part of the overall Aerovox settlement, it was agreed that the containment (sheet pile wall) would be inspected annually to the extent it was visible at the surface, to confirm that it remained intact, that it was free of bulges and breaches, that it did not show evidence of pending catastrophic failure, and that it continued to function to contain the soil behind it and physically isolate those shallow soils from the river. The annual inspections, including the most recent one of June 5, 2015, have confirmed that the sheet pile wall remains in good condition and has not deteriorated to the point where these functions are compromised.

What is known of the site history indicates that the primary contaminant migration pathways from the Site to the river were through direct discharge from the two (north and south) building drainage ditches into the river itself, through the erosion and runoff of contaminated soils that existed in the former unpaved area between the former building and the shoreline, and the direct dumping of waste into the river from shore (as evidenced by the excavation of capacitors during dredging). All of these release mechanisms, plus the migration of dissolved contaminants within groundwater, existed prior to the 1984 construction of the sheet pile wall. Furthermore, the mobility discussion provided above, and the sampling and analysis conducted near shore by investigators to date (AECOM and the EPA) indicates that migration of DNAPL at the Site is in middle to late stage, and that the upland releases of DNAPL thirty to sixty years ago have long since reached the bedrock. Contaminants exist on both sides of the sheet pile wall, and flow through the sheet pile wall, if any, would take place in both directions, migrating into the Site during high tide and out from the Site during low tide.

Furthermore, based on the tidal study completed as part of the Phase II CSA (described in prior IRA Status Report and summarized in Section 5 below), the sheet pile wall appears to function to mitigate and minimize the flow of river water into and out of the perched, shallow impacted soils behind it which was its original purpose. While tidal responses in deep overburden and in bedrock were measured throughout the Site, including a reversal of flow direction depending upon tide stage, the shallow overburden aquifer on top of the peat adjacent to the wall has minimal to no response to tidal fluctuations. Thus, the existing sheet pile wall mitigates the migration of contaminants near the surface (down to approximately 8 to 12 feet bgs); it does not mitigate, nor was intended to mitigate, effects of dissolved contaminant migration within groundwater at the deep overburden/bedrock interface or within bedrock fractures.

4.3 LINES OF EVIDENCE REGARDING DNAPL MIGRATION

The DNAPL mobility evaluation utilized site-specific data and standard methods to assess the potential for DNAPL to mobilize and migrate within the subsurface stratigraphy at the Site. The results of the evaluation are in agreement with the site-specific results reviewed. Specifically, the DNAPL mobility evaluation determined that site DNAPL will readily migrate vertically or sink due to the specific gravity of the mixed DNAPL, the gradation of the overburden and the existing gradients. The site-specific data indicates that in fact DNAPL has migrated vertically through the fill and overburden materials to and into bedrock beneath the Site.

Further, the evaluation determined that the site DNAPL will migrate laterally, in both an easterly and westerly direction, under the influence of the observed tidally-influenced reversing gradients, provided a sufficient DNAPL body is present. This continual back and forth migration would likely serve to aid in the dissolution of subsurface DNAPL and support a preference for vertical migration (i.e., sinking) of DNAPL. The site-specific investigative data reviewed does not support wide-spread DNAPL accumulations, rather limited areas of known DNAPL presence, with likely larger areas constituting residual DNAPL zones, which are by definition incapable of migrating. Therefore, the DNAPL mobility evaluation is congruent with the investigative findings and supportive of a middle- to late-stage DNAPL plume condition. The mobility assessment supports the observation of measured (and recovered) DNAPL, i.e., its downward mobility has dominated over a period of 30+ years resulting in the remaining limited pooling at the deepest interface between overburden and top of rock and within shallow bedrock at the northeast corner of the property.

With respect to DNAPL recoverability, the completed assessment suggests that separate phase DNAPL recovery is in theory possible from the deep overburden materials; however, an expanded DNAPL recovery program is not warranted based upon the lack of appreciable DNAPL accumulation at this horizon.

When considering remediation of sites impacted with the known presence of DNAPL, mass removal of the DNAPL should be implemented where practical. However, DNAPL removal is often a time-intensive effort and no remedial technologies ever implemented have been demonstrated to be effective at 100% DNAPL removal. Regulatory guidance acknowledges that

quantitative predictions of the potential benefits and adverse impacts of DNAPL source depletion efforts are uncertain (USEPA, 2003).

The existing Conceptual Site Model will be updated to incorporate the data discussed herein and the subsequent data to be collected before submission of the Phase II CSA Report. As the CSM is reviewed and refined, further consideration of the additional lines of evidence is warranted, including application of the corresponding calculations contained in the Keuper and Davies publication and the ITRC publication recommendations relative to mid to late stage DNAPL. The revised CSM submitted with the Phase II CSA will be used in conjunction with the results of the risk characterization to subsequently screen potential remedial technologies during the Phase III. Consideration given to both the site-specific conditions and associated risks, and remedies will be developed during Phase III that comprehensively addresses site-wide objectives.

5.0 OTHER RELATED INFORMATION (310 CMR 40.0425(3)(d))

5.1 SUMMARY OF PHASE II CSA ACTIVITIES SINCE LAST STATUS REPORT

The following sections summarize the data collection efforts undertaken as part of the Phase II CSA since the last IRA Status Report submittal.

5.1.1 *Sub-Slab Soil Vapor Sampling*

On April 19, 2015, AECOM collected a second round of sub-slab soil vapor samples from beneath the Titleist building south of the Site. Eight-hour samples were collected from each of the four monitoring points and submitted for analysis of CVOCs by MassDEP Compendium of Analytical Method (CAM) WSC-CAM-IXB/Method TO-15.

Refer to **Table 3** for a summary of the sub-slab soil vapor results and **Appendix B** for the complete laboratory report.

5.1.2 *Well Installations*

In April, AECOM mobilized to the Site to complete additional field investigation activities for the purpose of filling existing data gaps relative to the horizontal and vertical delineation of groundwater contamination at the Site. Three shallow bedrock open borehole wells were installed on the north and southern abutting properties. These wells were installed south of the east end of the Titleist building (MW-29B); in Graham Street, near existing monitoring well MW-4A (MW-30B); and, near the northeast corner of the Precix property (MW-31B). A fourth shallow bedrock monitoring well is planned for installation at the Coyne Textile Services property north of Precix; however, access to the Coyne property has not been negotiated as of this time. In addition to the shallow bedrock monitoring wells, three open borehole, deep bedrock wells were installed on the Site. These wells, identified as MW-32B through MW-34B were installed in the southeast corner, northeast corner and north-central portion (near MW-26B) of the Site, respectively.

Prior to initiation of drilling, each of the three off-site well locations was cleared of utilities using soil vacuum excavation. Soil samples were collected from several intervals using a hand auger to allow for screening the sample with a photoionization detector (PID), visual observation, and soil classification. A Geoprobe was then utilized to advance the boring to the bedrock surface. Soils contained within each 5-foot macrocore section were screened with a PID, visually observed, and classified. Select samples were submitted for laboratory analysis of CVOCs and PCBs. In addition, the Geoprobe was advanced adjacent to the MW-15B/-15D couplet for collection of samples from various depth intervals for grain size analysis. Refer to **Table 4** for a summary of the soil analytical data and **Appendix B** for the complete laboratory report.

At each of the six bedrock well locations, drive and wash drilling techniques were used to install 4-inch permanent stainless steel casing. The permanent casing was installed a minimum of 6 feet into bedrock, to ensure that the well was seated in competent bedrock. After a period of no less than 24 hours, the open borehole section of each well was advanced using air hammer

drilling techniques to the chosen terminal depth. The three shallow bedrock wells were installed to 60.25 feet bgs, 53 feet bgs and 60.25 feet bgs, respectively. Deep bedrock wells were installed to depths of 185 feet bgs, 292 feet bgs and 198 feet bgs. Refer to **Appendix G** for the draft boring/monitoring well logs for each well. **Appendix H** provides updated geologic cross sections for the Site.

During installation of the deep bedrock wells, a packer was installed in the well after each 20-foot depth interval. Approximately one well volume was pumped from each packer interval and a groundwater sample was collected for analysis of CVOCs and PCBs to screen for the presence of contaminants and to aid in selection of depth intervals for installation of Water FLUTE multi-level samplers. The CVOC sample for each interval was run by the laboratory when submitted. After receipt of the CVOC analytical results for each interval, the PCB sample for selected packer intervals was run. Refer to **Table 5** for a summary of the groundwater analytical data for the packer intervals and **Appendix B** for the complete laboratory reports. Note that the packer interval samples will not be validated, as they are for screening purposes only.

A Flexible Liner Underground Technologies (FLUTE) liner was installed in each of the three deep bedrock monitoring wells to minimize cross contamination across varying depths of the bedrock aquifer.

On May 19, 2015, Hager-Richter mobilized to the Site to complete geophysical logging of the seven new bedrock wells. Logging of each well included caliper, poly-electric (normal resistivity, single point resistivity, and spontaneous potential), natural gamma, temperature and fluid resistivity, acoustic televiewer, optical televiewer and heat pulse flow meter. The objective of the geophysical logging was to identify bedrock fracture presence, depths, and orientation. For the deep bedrock wells, the geophysical logging will also be used to identify the depth intervals for construction of the multi-level sampling system (Water FLUTES). Preliminary results for the three deep bedrock wells have been received. The geophysical logs for the remaining three wells are still being prepared, and the final Hager-Richter report has not been received as of this time. Refer to **Appendix I** for the preliminary geophysical logs for the three deep bedrock wells.

5.2 ONGOING DATA EVALUATION

The following Phase II CSA efforts were ongoing during the period since the last IRA Status Report submittal.

5.2.1 Pump Test Summary

Four short duration pumping tests were performed at the Site between September 15 and September 18, 2014. The pumping tests were conducted to evaluate hydraulic connections between the sandy overburden sediment and the bedrock aquifers present at the Site. Bedrock Test #1 and Bedrock Test #2 were performed on wells MW-26B and MW-6B, respectively and Overburden Test #1 and Overburden Test #2 were performed on deep overburden wells MW-6 and MW-17D, respectively.

Pumping test setup consisted of installing pressure transducers in the pumping well and selected monitoring wells. Manual water level measurements were taken to confirm transducer readings and to provide backup readings in the event of accidental data loss. Most of the wells were monitored with Troll Model 700 vented pressure transducers rated at 15 pounds per square inch (psi) manufactured by InSitu Inc. Several additional wells were monitored with Micro-Divers non-vented transducers rated at 15 psi manufactured by Schlumberger, as were the water levels in the Acushnet River. The two bedrock wells tested were conducted using a Grundfos Redi-Flo2® electrical submersible pump. The two overburden wells tested required higher pumping rates which were achieved using a gasoline power surface centrifugal pump with suction tubing. Flow rates were calculated using 5-gallon buckets or 55-gallon drums depending on the rate. The discharge water was temporarily stored in 55-gallon drums and then transferred to a 21,000 gallon fractionation (frac) tank. The water generated during testing was disposed of offsite.

Table 5-1 summarizes the test information including the date, the pumping test start and stop times, the pumping test duration in minutes, and the average pumping rate. Each of these tests is discussed below.

**TABLE 5-1
 Pumping Test Summary**

Test #	Pumping Well	Aquifer	Date	Pumping Starts	Pumping Stops	Duration (min)	Rate (gpm)
1	MW-26B	Bedrock	9/15/2014	11:50	16:25	4:35	1.4
2	MW-6B	Bedrock	9/16/2014	13:08	17:08	4:00	4.9
3	MW6	Overburden	9/17/2014	9:32	13:52	4:20	11
4	MW17D	Overburden	9/18/2014	10:25	14:40	4:15	13

BEDROCK TEST #1

Hydrographs prepared for this test are presented in **Appendix J. Figure J-1** through **Figure J-12** present data from this test where bedrock well MW-26B was pumped at 1.4 gpm. **Table 5-2** presents the well identifications, the aquifer the well is monitoring, and the distance and direction to the pumping well, and observations from the graphed data. No obvious pumping effects were evident in nearby wells.

**TABLE 5-2
 Bedrock Test #1
 MW-26B Pumping Test Summary**

Well ID	Aquifer	Distance to MW-26B (feet)	Bearing North from MW-26B (degrees)	Observation
MW-26B	BR	0	0	No pressure transducer readings during pumping
MW-02B	BR	503.8	106.2	No response
MW-10D	DO	326.7	114.2	No response
MW-15B	BR	516.7	85.6	No response
MW-17B	BR	487.2	118.9	No response
MW-20B	BR	663.4	235.1	No response
MW-21B	BR	432.1	209.8	No response
MW-23B	BR	444.3	154.6	No response
MW-27B	BR	268.3	126.4	No response
MW-28B	BR	426.8	83.4	No response
MW-103B	BR	477.3	75.1	No response
MW-4B	BR	314.9	226.7	No response

BEDROCK TEST #2

Hydrographs prepared for this test are presented in **Appendix J. Figure J-13** through **Figure J-26** present data from this test where bedrock well MW-06B was pumped at 4.9 gpm. **Table 5-3** presents the well identifications, the aquifer the well is monitoring, and the distance and direction to the pumping well, and observations from the graphed data. Responses to pumping were observed in overburden wells MW-6, MW-18D, MW-102D, and bedrock well MW-26B. The responses indicate there is good communication between the bedrock aquifer and the overlying sediments. Observation well MW-26B showed a response to cessation of pumping (recovery curve) indicating there is a hydraulic connection between MW-6B and MW-26B via shallow bedrock fracture(s).

**TABLE 5-3
 Bedrock Test #2
 MW-6B Pumping Test Summary**

Well ID	Aquifer	Distance to MW-06B (feet)	Bearing North from MW-06B (degrees)	Observation
MW-06B	BR	0	0	Stepped pumping evident during early pumping
MW-02B	BR	316.8	130.1	No response
MW-6	DO	4.5	5.0	Small response, signature of steps, sharp recovery when pumping stops
MW-6A	SO	3.9	8.1	Very small response when pumping stops
MW-10D	DO	205.9	164.1	Very small response when pumping stops
MW-15B	BR	274.5	95.0	No response
MW-17B	BR	351.8	148.3	No response
MW-18D	DO	87.1	294.7	Very small response when pumping stops
MW-26B	BR	250.0	255.2	Very small response when pumping stops
MW-27B	BR	224.7	186.6	No response
MW-28B	BR	182.8	94.6	No response
GZ-101D	DO	402.2	272.2	No response
GZ-102D	DO	15.1	327.5	Small response at beginning and end of pumping
MW-103B	BR	227.2	75.1	No response

OVERBURDEN TEST #1

Hydrographs prepared for this test are presented in **Appendix J. Figure J-27** through **Figure J-43** present data from this test where bedrock well MW-06 was pumped at 11 gpm. **Table 5-4** presents the well identifications, the aquifer the well is monitoring, and the distance and direction to the pumping well, and observations from the graphed data. Responses to pumping were observed in overburden wells MW-6A, MW-10D, MW-18S, MW-18D, MW-103B, GZ-102S, and GZ-102D. Bedrock observation well MW-26B also showed both drawdown and recovery phases indicating there is good hydraulic communication between fracture(s) which terminate near overburden well MW-6 and the fractures in MW-26B.

TABLE 5-4
Overburden Test #1
MW-6 Pumping Test Summary

Well ID	Aquifer	Distance to MW-06 (feet)	Bearing North from MW-06 (degrees)	Observation
MW-6	DO	0	0	5 feet of drawdown which stabilizes in the pumping well
MW-02B	BR	319.4	130.8	No response
MW-6A	SO	0.7	166.6	Approximately 0.08 feet of drawdown
MW-10D	DO	210.1	164.6	Very slight response during recovery phase
MW-15D	DO	273.7	95.1	No response
MW-15B	BR	274.5	96.0	No response
MW-17B	BR	355.4	148.7	No response
MW-18S	SO	89.5	291.0	Approximately 0.05 feet of drawdown and recovery
MW-18D	DO	85.7	291.9	Approximately 0.05 feet of drawdown and recovery
MW-26B	BR	251.6	254.2	Approximately 0.03 feet of drawdown and recovery
MW-27B	BR	229.2	186.5	No response
MW-28B	BR	182.9	96.0	No response
MW-103B	BR	225.7	76.2	Approximately 0.01 feet of drawdown and 0.02 feet of recovery
GZ-101D	DO	402.4	271.6	No response
GZ-102S	SO	8.0	352.5	Approximately 0.06 feet of drawdown
GZ-102D	DO	11.8	314.1	Approximately 0.26 feet of drawdown
GZ-103D	DO	246.3	71.0	No response

OVERBURDEN TEST #2

Hydrographs prepared for this test are presented in **Appendix J. Figure J-44** through **Figure J-61** present data from this test where bedrock well MW-17D was pumped at 13 gpm. **Table 5-5** presents the well identifications, the aquifer the well is monitoring, and the distance and direction to the pumping well, and observations from the graphed data. Responses to pumping were observed in overburden wells MW-10D, MW-19D, and MW-27D. Additionally, responses were observed in bedrock wells in MW-17B, MW-23B, MW-23D, and MW-27B indicating there

is good hydraulic communication between fracture(s) which terminate near overburden well MW-17D and the fractures in these bedrock wells.

TABLE 5-5
Overburden Test #2
MW-17D Pumping Test Summary

Well ID	Aquifer	Distance to MW-17D (feet)	Bearing North from MW-17D (degrees)	Observation
MW-17D	DO	0.0	0.0	9 feet of drawdown. The suction piping got pinched several times which caused recovery peaks in observation well data. Manual water levels did not capture these changes
MW-2	DO	117.1	30.5	Minor deflection
MW-02B	BR	114.0	31.6	Deflections of 0.1 feet during both drawdown and recovery phase
MW-3	SO	181.4	15.3	No response
MW-6A	SO	355.1	329.2	No response
MW-06B	BR	352.1	328.8	No response
MW-7	DO	198.5	27.8	No response
MW-07B	BR	197.8	25.6	No response
MW-10D	DO	163.0	309.3	Deflections of 0.1 feet during both drawdown and recovery phase
MW-15D	DO	295.7	17.8	No response
MW-17B	BR	3.1	52.6	Deflections of 0.2 feet during both drawdown and recovery phase
MW-18S	SO	429.7	321.8	No response
MW-19D	DO	334.5	260.2	Slight deflections during both drawdown and recovery phase
MW-22S	SO	326.5	244.6	No response
MW-23B	BR	285.6	234.9	Slight deflections during both drawdown and recovery phase
MW-23D	DO	286.8	234.3	Slight deflections during both drawdown and recovery phase
MW-27B	BR	222.2	290.6	Deflections of 0.1 feet during drawdown phase
GZ-102D	DO	367.2	328.8	No response

5.2.2 Tidal Study Summary

A tidal study was conducted at the Site between September 8 and September 12, 2014. The study was conducted to characterize the relationship between the tidal fluctuations in the Acushnet River and the potentiometric water levels in the overburden and bedrock aquifers present on the Site. Data logging pressure transducers were installed into 17 overburden wells, and 8 bedrock wells, and a staff gauge in the Acushnet River. Wells were chosen to provide representative coverage across the Site.

The groundwater (potentiometric) levels monitored in onsite monitoring wells exhibit wave-like (sinusoidal) patterns which in most cases closely mimic the water levels recorded in the Acushnet river. Potentiometric levels from several bedrock rock wells measured during the week of September 15 through September 18, were also evaluated for tidal fluctuations as pumping activities during that time did not appear to affect water levels in those wells. A data logger was also attached to a staff gauge which was installed in the Acushnet River. A summary of data from the staff gauge is presented in Table 5-6.

**Table 5-6
 Summary of Staff Gauge Data
 Acushnet River**

Period	Cycles	Start	End	Days	Min (ft, msl)	Max (ft, msl)	Average (ft, msl)	Range (ft)
1	6	9/9/2014 8:15	9/12/2014 4:45	2.9	-1.53	4.33	1.21	5.86
2	6	9/12/2014 11:30	9/15/2014 6:30	2.8	-1.10	4.19	1.19	5.29
3	7	9/15/2014 14:15	9/18/2014 22:45	3.4	-0.12	3.37	1.32	3.49

To facilitate discussion the data was divided into three approximately 3-day periods. The largest tidal range was observed during Period 1. However, the highest mean tide was recorded during Period 3. Period 1 corresponded to a supermoon (or perigee new moon) which is the moon's closest point to the earth in its orbit; this causes unusually large tidal variations. **Appendix K, Figure K-1** presents water levels recorded at the Acushnet River Staff Gauge and the three 3-day periods.

Small fluctuations in water levels from the Acushnet River were recorded during low and high tides when water levels are relatively stable over the course of several hours. These fluctuations likely continue 24 hours per day but are largely masked during rising and falling tides. It is hypothesized that a narrowing of the water way 1.25 miles to the south of the Site is the possible source of these fluctuations. The closest narrowing of the Acushnet River is the opening at the Coggeshall Street/Howland Road Bridge. This restricted inlet is a focal point and source for refractory waves which travel up the river and possibly refract from one side of the shore to the other side of the shore. This focal point is analogous to dropping a pebble in a stream and watching concentric waves emanating from this point. These smaller water level

fluctuations are transmitted in detail to both the overburden and bedrock wells on the Site. Figures showing potentiometric hydrograph data from both overburden and bedrock monitoring wells versus the water levels from the Acushnet River Staff Gauge are presented in **Figure K-2** through **Figure K-5 (Appendix K)**.

The tidal efficiency was calculated for each monitoring well to obtain the tidal fluctuation and average percent response at each location relative to the water level in the river.

Hydrographs for each well were reviewed to determine the difference in elevation from the trough (minimum) to the crest (maximum) over multiple tidal cycles. The change in water level elevations for each well and for each cycle was divided by the change in water level measured in the river during the corresponding time period. Shallow overburden well MW-3A showed only minor fluctuations which is likely due to its shallow depth and position next to the sheet pile wall. The resulting percent response values for each well were then averaged. This data is presented in **Table 5-7**.

**Table 5-7
 Summary of Tidal Efficiency**

Well ID	Distance from river, feet	Average		Well ID	Distance from river, feet	Average	
		Percent Response	Fluctuation feet			Percent Response	Fluctuation feet
Overburden Wells				Bedrock Wells			
MW03A	72	1.2	0.07	MW04B	704	4.0	0.14
MW07	28	59.8	3.31	MW07B	34	52.9	2.94
MW08S	628	1.2	0.06	MW13B	652	1.8	0.10
MW10D	217	25.0	1.39	MW15B	27	52.4	2.92
MW13D	647	1.9	0.10	MW17B	49	41.0	2.29
MW15D	27	61.0	3.40	MW20B	898	4.4	0.24
MW17D	52	42.0	2.35	MW21B	569	2.6	0.15
MW18D	385	4.2	0.23	MW23B	163	32.6	1.82
MW19D	296	18.9	1.06	MW27B	300	22.1	0.63
MW19S	291	6.9	0.38	MW28B	118	33.7	0.96
MW20D	894	1.0	0.05	MW103B	60	18.3	1.01
MW21D	574	3.7	0.20	Staff Gauge		100.0	5.54
MW22S	226	16.5	0.92				
MW23D	163	30.4	1.70				
MW24D	555	1.8	0.10				
GZ101D	708	1.2	0.07				
GZ103S	60	32.3	1.80				

Additionally, the tidal efficiency/percent response was plotted in overburden and bedrock monitoring wells versus distance from the Acushnet River. A best fit trend line/response curve

was applied to both aquifers and is presented in **Appendix K, Figure K-2**. The percent response to water level fluctuations in the river was as high as 60 percent for observation wells in both overburden and bedrock within 30 feet of the river but drop to 10-20 percent within the first 300 feet. Beyond 150 feet from the river the tidal efficiency of the bedrock aquifer appears to be slightly higher than that of the overburden, but this may be a function of well control. Based on the data, the response of the overburden aquifer and the bedrock aquifers is quite similar which suggests that the two units are in good hydraulic communication with the river and likely each other.

5.2.3 Bedrock Geology Summary

The city of New Bedford lies within the Southeastern Massachusetts Batholith which is Proterozoic in age. The Proterozoic Eon is 2500 to 542.0±1.0 million years ago. The igneous intrusive rocks at the Site were metamorphosed (heated and squeezed) multiple times to form the rocks observed today. The region has been subjected to many collisions with continents, microcontinents, and volcanic arcs, with metamorphism accompanying these mountain-building events. A geologically significant tectonic event was the Alleghanian orogeny which occurred approximately 325 to 260 Ma having at least five deformation events.

The Freetown fault is a major structural feature in the area trending north-south from Dartmouth, Massachusetts to Lakeville more than 20 miles to the north. The Acushnet River flows in an erosional feature roughly following the fault zone and forms the eastern site boundary of the Site. Movement on the fault is with the upthrown block to the west and the downthrown side to the east of the north-trending fault. Mineral assemblages in rock cores from the Site contain varying mineral assemblages of quartz, feldspar, amphibole, and other minor minerals. Gneissic foliation is present at thicknesses ranging from less than 1 to 10 millimeters (mm). Some of the rocks may be classified as mafic gneiss while others are much lighter in color and contain fewer amphiboles.

In addition to the variation in mineral assemblage there are differences in foliation. Most of the rock cores show foliation that dips about 30 to 50 degrees. Rocks close to the river (in borings MW-2B, MW-7B and MW-15B) lack distinct foliation but have fractures filled and sealed with a secondary mineral, possibly epidote. Bedrock in the southernmost boring along the shore line (MW-17B) is foliated, suggesting that the fault zone passes closer to the northern portion of the Site where the rock is fractured.

The bedrock surface map (**Figure 4**) shows a linear bedrock low between wells MW-17B and MW-6B. This bedrock low trends parallel to the Freetown fault and Acushnet River. West and away from the shoreline, the bedrock surface rises from approximately 30 feet below mean sea level (msl) to 0 feet msl in the southwest corner of the Site. Just to the west of MW-10D there is a relatively steep escarpment where the bedrock surface rises to approximately 15 feet within less than 100 feet of horizontal distance. The bedrock rises to the west, and crops out west of the Site.

The internal structure of the bedrock was inferred from strike and dip measurements of the bedrock outcrop located on the west side of Acushnet Avenue at its intersection with Hadley Street. Two joint sets were identified in the outcrop, one trending north and dipping 61 degrees east and the other trending east and dipping 49 degrees south. The north-trending joints are likely expressed as the north-trending lows on the bedrock surface. The east-trending joints are less pronounced on the bedrock surface map, but both joint sets are likely major pathways for groundwater migration. The gneissic foliation trends northwest and dips northeast at 36 degrees. This banding is evident in rock cores and fractures along these structures often display evidence of water contact such as iron staining, the accumulation of sediment, and weathering.

Characterization of bedrock at depth continues and uses a downhole optical and acoustic televiewer, acoustic caliper, and heat pulse flow meters (HPFM) to evaluate bedrock fractures for their potential to transmit water. Fracture zones were identified in three deep bedrock wells using these tools. The mid-point of the fracture zone was calculated and zones were identified and summarized for each well in the table below. No flow was detected by the HPFM below 159 feet and 185 ft bgs in MW-32B and MW-33B, respectively. Below 180 feet bgs only minor flow (0.04 gpm) was observed in MW-34B. These results suggest that below approximately 185 feet there is little, if any, ability for groundwater to migrate laterally.

Table 5-8

Well ID	Depth to Center of Mapped Fracture Zone (feet bgs)			
MW-32	106	140		158
MW-33	118	180	217.5	245
MW-34	70	102	125	175

6.0 MANAGEMENT OF REMEDIATION WASTE (310 CMR 40.0425(3)(c))

DNAPL, contaminated soil, contaminated groundwater, and contaminated personal protective equipment (PPE) are being generated during IRA activities. The DNAPL generated from recovery activities is temporarily stored in a covered 5-gallon pail that is stored within a 55-gallon drum in the secure temporary drum storage unit (with integral secondary containment) at the Site. Solids (soil, sample/pump tubing, and PPE) generated as part of the IRA and other Phase II CSA investigations are stored in separate 55-gallon drums on the Site pending transportation and disposal. Liquids (decontamination water, drilling water, development water and sampling purge water) generated as part of the recent Phase II CSA activities were temporarily stored in a frac tank.

Recovered DNAPL was removed from the Site for transportation and disposal by Clean Harbors on March 9, 2015 and again on May 26, 2015. Thirty-seven 55-gallon drums were also removed from the Site for transportation and disposal on May 26, 2015. Six shipments of liquids from the frac tank were shipped between May 15, 2015 and June 3, 2015. Refer to **Appendix L** for a copy of the waste manifests.

7.0 LSP OPINION (310 CMR 40.0425(3)(e))

The IRA activities to date have been successful in removing a limited quantity of DNAPL and providing additional assessment of the extent of DNAPL in and around MW-15D and MW-15B and along the Aerovox shoreline. The IRA has been and will continue to be conducted in conformance with the IRA Plan submitted to MassDEP on June 9, 2014.

8.0 REFERENCES

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Massachusetts Contingency Plan, 310 CMR 40.0000, June 2014.

TABLES

Table 1
 DNAPL Recovery Summary
 Aerovox, 740 Belleville Avenue, New Bedford, MA
 RTN 4-04601

MW-15D

Date	Depth to Groundwater (ft)	Approximate DNAPL Thickness (inches)	Recovery Event Volume (ounces)	Recovery Event Volume (ml)	Cumulative Volume Removed (ml)	Recovery Event Volume (gal)	Cumulative Volume Removed (gal)	Tide Cycle At Measurement
5/19/2014	NM	7	8 to 16	350	350	0.09	0.09	NR
6/2/2014	5.03	4.5	8 to 16	350	700	0.09	0.18	NR
6/16/2014	NM	4.5	5.5	160	860	0.04	0.23	NR
6/30/2014	NM	6	5	150	1010	0.04	0.27	NR
7/27/2014	4.49	3.5	3.4	100	1110	0.03	0.29	low tide
8/18/2014	3.85	3	3.4	100	1210	0.03	0.32	3/4 of high
9/22/2014	5.46	5	6.8	200	1410	0.05	0.37	3/4 of high; ebbing
10/6/2014	5.48	3	1.4	40	1450	0.01	0.38	low tide
10/22/2014	4.93	4	6.8	200	1650	0.05	0.44	low tide
11/3/2014	5.74	4	0.0	1.25	1651	0.00	0.44	low tide
11/17/2014	4.43	4	3.4	100	1751	0.03	0.46	Mid-tide; ebbing
12/8/2014	2.76	4	5.1	150	1901	0.04	0.50	high tide
12/23/2014	2.94	3.5	2.7	80	1981	0.02	0.52	high tide
1/6/2015	6.35	3.5	2.5	75	2056	0.02	0.54	low tide
1/19/2015	5.07	3	3.4	100	2156	0.03	0.57	low tide
2/6/2015	NM	3	0.7	20	2176	0.01	0.57	not noted
2/23/2015								
3/9/2015	3.78	6	4.2	125	2301	0.03	0.03	high tide
3/23/2015	3.13	5.5	5.1	150	2451	0.04	0.07	high tide
4/13/2015	5.46	1	1.0	30	2481	0.01	0.08	3/4 of high tide; ebbing tide
4/27/2015	3.05	2.5	1.7	50	2531	0.01	0.09	3/4 of high tide; ebbing tide
5/11/2015	4.65	2.5	1.0	30	2561	0.01	0.10	3/4 of high tide; ebbing tide
5/26/2015	4.91	4	1.7	50	2611	0.01	0.11	mid flow tide
6/3/2015	4.99	2.5	1.7	50	2661	0.01	0.13	low tide

Notes:

Volume is estimated; includes DNAPL only - recovered water is not included in estimate
 For the total volume recovered calculation, a value of 12 ounces was used for the first two recovery events.
 The site could not be accessed on 2/23/2015 due to accumulation of ice and snow near the access gates.

Table 1
 DNAPL Recovery Summary (Continued)
 Aerovox, 740 Belleville Avenue, New Bedford, MA
 RTN 4-04601

MW-15B

Date	Depth to Groundwater (ft)	Approximate DNAPL Thickness (inches)	Recovery Event Volume (ounces)	Recovery Event Volume (ml)	Cumulative Recovery Volume (ml)	Recovery Event Volume (gal)	Cumulative Recovery Volume (Gal)	Tide Cycle
5/19/2014								
6/2/2014								
6/16/2014								
6/30/2014								
7/27/2014								
8/18/2014								
9/22/2014								
10/6/2014	4.63	3	10.1	30	30	0.00	0.00	low tide
10/22/2014	4.82	3.5	33.8	100	130	0.03	0.03	low tide
11/3/2014	5.46	3	33.8	100	230	0.03	0.05	low tide
11/17/2014	4.98	2.5	25.4	75	305	0.02	0.07	mid-tide; ebbing
12/8/2014	4.98	3.5	25.4	75	380	0.02	0.09	high tide
12/23/2014	3.43	2.5	25.4	75	455	0.02	0.11	high tide
1/6/2015	4.62	3	25.4	75	530	0.02	0.13	low tide
1/19/2015	6.04	3	20.3	60	590	0.02	0.15	low tide
2/6/2015	NM	3	6.8	20	610	0.01		not noted
2/23/2015								
3/9/2015	4.11	4.5	33.8	100	710	0.03	0.17	high tide
3/23/2015	4.78	5	42.3	125	835	0.03	0.21	high tide
4/13/2015	5.07	1.5	25.4	75	910	0.02	0.23	3/4 of high tide, ebbing tide
4/27/2015	4.70	3.5	20.3	60	970	0.02	0.24	Flow tide, nearly high
5/11/2015	4.99	5.5	20.3	60	1030	0.02	0.26	3/4 of high tide, ebbing tide
5/26/2015	5.13	2.5	8.5	25	1055	0.01	0.27	mid flow tide
6/3/2015	5.33	2	16.9	50	1105	0.01	0.28	low tide

Notes:

Volume is estimated; includes DNAPL only - recovered water is not included in estimate
 DNAPL was not observed at a measureable thickness in MW-15B until September 29, 2014
 The site could not be accessed on 2/23/2015 due to accumulation of ice and snow near the access gates.

Table 2
Groundwater Elevation Data
Aerovox Facility
740 Belleville Avenue, New Bedford, Massachusetts

Type	Well ID	Property	Measuring Point: PVC or Roadbox	Overburden, TOB ² or Bedrock ¹	Total Well Depth ³	Screen Length	Measuring Point Elevation ⁵	Depth to Water 12/2010	Groundwater Elevation 12/2010	Depth to Water 11/2011	Groundwater Elevation 11/2011	Depth to Water 12/2012	Groundwater Elevation 12/2012	Depth to Water 03/2014	Groundwater Elevation 03/2014	Depth to Water 06/23/2014	Groundwater Elevation 06/23/2014	Depth to Water 9/12/2014	Groundwater Elevation 09/12/2014	Depth to Water 12/11/2014	Groundwater Elevation 12/11/2014	Depth to Water 5/28/2015	Groundwater Elevation 5/28/2015	
Acushnet River	Wood Street Bridge Mark	NA	NA	NA	NA	NA	13.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.82	-0.87	
Acushnet River	Staff Gauge	NA	NA	NA	NA	NA	4.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.42	1.76	NM	NA	NM ⁶	NA	
Shallow Overburden Wells	GZ-1	Precix	PVC	Overburden	13	10	9.79	7.47	2.32	6.29	3.50	8.14	1.65	7.32	2.47	7.78	2.01	7.92	1.87	7.06	2.73	7.97	1.82	
	GZ-2	Precix	PVC	Overburden	13	10	7.47	4.53	2.94	4.33	3.14	4.91	2.56	4.15	3.32	4.60	2.87	4.99	2.48	4.17	3.30	4.54	2.93	
	GZ-3	Precix	PVC	Overburden	15	unknown	12.70	10.26	2.44	8.96	3.72	11.01	1.69	10.04	2.66	10.52	2.08	10.96	1.74	9.84	2.86	10.76	1.94	
	GZ-101S	Precix	PVC	Overburden	11.91	10	7.46	5.30	2.16	4.19	3.27	5.88	1.58	5.19	2.27	5.55	1.91	5.73	1.73	5.00	2.46	5.76	1.70	
	GZ-102S	Precix	PVC	Overburden	13	10	6.54	4.94	1.68	4.23	2.39	5.33	1.21	4.96	1.58	5.20	1.34	5.11	1.43	4.77	1.77	5.47	1.07	
	GZ-103S	Precix	PVC	Overburden	11.90	10	5.97	4.85	1.25	4.56	1.54	4.79	1.31	4.26	1.84	5.33	0.77	4.13	1.84	5.02	0.95	5.53	0.44	
	MW-TTL-01	Titleist	PVC	Unknown (overburden)	16.90	unknown	5.58																4.92	0.66
	MW-1	Precix	PVC	Unknown (overburden)	13.6	unknown	8.03	4.47	3.56	3.98	4.05	5.00	3.03	4.00	1.00	5.02	3.01	5.72	2.31	3.29	4.74	5.07	2.96	
	MW-2A	Aerovox	PVC	Unknown (overburden)	3.01	unknown	4.70	NM	NM	N/A	NM	N/A	NM	N/A	2.02	2.68	2.02	2.68	1.78	2.92	1.84	2.86	2.22	2.48
	MW-3 (Aerovox)	Aerovox	PVC	Overburden	12.66	unknown	6.27	NM	NM	7.96	-1.05	NM	N/A	4.10	2.17	4.22	2.05	4.48	1.79	3.64	2.63	4.32	1.95	
	MW-3 (Precix)	Precix	PVC	Unknown (overburden)	14.85	unknown	11.45	9.24	2.21	7.96	3.49	9.81	1.64	8.99	2.46	9.67	1.98	9.76	1.69	8.79	2.66	9.64	1.81	
	MW-3A	Aerovox	PVC	Unknown (overburden)	7.65	unknown	6.31	6.16	2.09	5.62	2.63	4.46	1.85	4.14	2.17	4.26	2.05	4.51	1.80	3.67	2.64	4.35	1.96	
	MW-4A	Aerovox	PVC	Overburden	5.90	5	7.08	7.79	3.05	7.47	3.37	4.68	2.40	3.92	3.16	3.93	3.15	4.18	2.90	3.53	3.55	4.02	3.06	
	MW-4S	Precix	PVC	Overburden	13	10	7.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.19	2.04	5.65	1.55	5.58	1.62	4.97	2.23	5.73	1.47
	MW-6S	Aerovox	PVC	Overburden	9.50	unknown	6.66	7.31	1.66	6.60	2.37	5.45	1.21	5.05	1.61	5.35	1.31	4.90	1.76	5.57	1.09			
	MW-7A	Aerovox	PVC	Unknown (overburden)	9.65	unknown	5.55	4.31	2.97	4.21	3.07	2.75	2.80	2.58	2.97	2.43	3.12	2.55	3.00	2.30	3.25	2.53	3.02	
	MW-8S	Aerovox	PVC	Unknown (overburden)	8.48	unknown	6.22	3.46	2.05	blocked	N/A	4.70	1.52	4.26	1.96	4.42	1.80	4.58	1.64	4.08	2.14	4.72	1.50	
	MW-12S	Aerovox	PVC	Overburden, TOB	13	10	7.76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.20	2.56	5.60	2.16	5.78	1.98	5.15	2.61	5.76	2.00
	MW-13D	Aerovox	PVC	Overburden, TOB	12	10	5.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.94	2.31	3.42	1.83	3.61	1.64	2.94	2.31	3.59	1.66
	MW-16S	Precix	PVC	Overburden	13	10	5.87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.35	1.52	4.52	1.35	4.48	1.39	4.13	1.74	4.81	1.06
MW-18S	Precix	PVC	Overburden	13	10	7.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.43	1.65	5.68	1.40	5.64	1.44	5.22	1.86	5.92	1.16	
MW-19S	Aerovox	PVC	Overburden	13	10	7.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.90	1.50	6.01	1.39	5.83	1.57	5.66	1.74	6.38	1.02	
MW-20D	Aerovox	PVC	Overburden, TOB	11.85	7	12.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.52	3.13	8.81	3.84	9.79	2.86	
MW-22S	Aerovox	PVC	Overburden	13	10	6.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.74	1.84	5.01	1.57	5.73	0.85	
MW-25D	Aerovox	PVC	Overburden, TOB	8.5	5	7.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.79	1.76	NM	NA	NM	NA	
GZ-101D	Precix	PVC	Overburden	24.52	5	7.69	6.55	2.14	4.45	3.24	6.13	1.56	5.47	2.22	5.81	1.88	5.97	1.72	5.29	1.40	6.05	1.64		
GZ-102D	Precix	PVC	Overburden	45	5	6.53	4.90	1.64	4.19	2.35	5.29	1.24	4.90	1.63	5.25	1.28	5.04	1.49	4.80	1.73	5.52	1.01		
GZ-103D	Precix	PVC	Overburden	23.34	5	6.13	4.76	1.47	4.56	1.67	4.95	1.28	4.52	1.71	5.50	0.73	4.24	1.89	5.18	0.95	5.71	0.42		
GZ-4A	Precix	PVC	Overburden	23.4	5	7.27	5.51	1.85	4.45	2.91	5.89	1.47	5.40	1.87	5.49	1.78	5.71	1.56	5.17	1.20	5.93	1.34		
MW-2	Aerovox	PVC	Unknown (overburden)	18.50	10	4.78	7.00	-0.63	5.40	0.97	3.40	1.38	2.89	1.89	4.05	0.73	2.92	1.86	3.80	0.98	2.30	2.48		
MW-4	Aerovox	PVC	Overburden	20.55	10	7.43	9.92	1.10	9.87	1.15	5.95	1.48	5.42	2.01	6.91	0.52	5.38	2.05	6.79	0.64	7.26	0.17		
MW-5	Aerovox	PVC	Overburden	21.23	5	13.45	12.91	2.68	11.38	4.21	11.60	1.85	10.52	2.93	11.15	2.30	11.50	1.95	10.40	3.05	11.31	2.14		
MW-6	Aerovox	PVC	Overburden	43.00	10	6.64	6.71	1.58	6.00	2.29	5.38	1.26	4.97	1.67	5.35	1.29	5.22	1.42	4.95	1.69	5.63	1.01		
MW-7	Aerovox	PVC	Unknown (overburden)	22.00	unknown	5.44	6.49	1.03	6.48	1.04	3.90	1.54	3.39	2.05	4.97	0.47	3.32	2.12	4.89	0.55	5.35	0.09		
MW-10D	Aerovox	PVC	Overburden, TOB	37	10	4.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.44	1.81	3.23	1.02	2.41	1.84	2.92	1.33	3.49	0.76	
MW-15D	Aerovox	PVC	Overburden, TOB	31	10	5.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.34	2.14	5.06	0.42	3.21	2.27	5.02	0.46	5.42	0.06	
MW-17D	Aerovox	PVC	Overburden, TOB	34	10	4.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.69	2.06	3.94	0.81	2.65	2.10	3.76	0.99	4.28	0.47	
MW-18D	Precix	PVC	Overburden, TOB	23	5	6.83	Precix	N/A	N/A	N/A	N/A	N/A	N/A	5.18	1.65	5.41	1.42	5.37	1.46	4.97	1.86	5.68	1.15	
MW-19D	Aerovox	PVC	Overburden, TOB	24	10	7.40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.70	1.70	6.24	1.16	5.58	1.82	5.96	1.44	6.58	0.82	
MW-20D	Aerovox	PVC	Overburden, TOB	11.85	7	12.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.52	3.13	8.81	3.84	9.79	2.86	
MW-21D	Aerovox	PVC	Overburden, TOB	19.3	10	11.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.07	2.06	8.61	2.52	9.35	1.78	
MW-23D	Aerovox	PVC	Overburden, TOB	34.05	10	6.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.98	2.02	4.81	1.19	5.37	0.63	
MW-24D	Aerovox	PVC	Overburden, TOB	25.9	10	7.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.24	1.41	5.68	1.97	6.42	1.23	
MW-2B	Aerovox	PVC	Bedrock	35.67	10	4.66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.01	1.65	3.97	0.69	2.42	2.24	3.81	0.85	4.31	0.35	
MW-4B	Aerovox	PVC	Bedrock	40.60	20 ⁷	9.60	6.67	2.12	5.80	2.99	7.52	2.08	7.45	2.15	7.72	1.88	7.73	1.87	7.30	2.30	8.01	1.59		
MW-6B	Aerovox	PVC	Bedrock	56.5	10	6.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.43	1.70	4.86	1.27	4.65	1.48	4.43	1.70	5.10	1.03	
MW-7B	Aerovox	PVC	Bedrock	45.50	10	5.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.95	1.63	5.14	0.44	3.65	1.93	5.02	0.56	5.50	0.08	
MW-11B	Aerovox	PVC	Bedrock	22.00	10	11.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.45	2.59	8.82	2.25	8.36	2.68	8.99	2.05			
MW-13B	Aerovox	PVC	Bedrock	24.00	10	5.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.10	2.00	3.20	1.90	3.37	1.73	2.80	2.30	3.48	1.62	
MW-15B	Aerovox	PVC	Bedrock	46.00	10	5.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.69	1.93	5.30	0.32	3.73	1.89	5.05	0.57	5.54	0.08	
MW-17B	Aerovox	PVC	Bedrock	49.00	10	4.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.93	2.06	4.16	0.83	2.86	2.13	3.96	1.03	4.49	0.50	
MW-20B	Aerovox	PVC	Bedrock	27.00	10	12.																		

Table 3
Summary of Soil Gas Results
Interim IRA Status Report
Aerovox Facility
740 Belleville Avenue, New Bedford, Massachusetts

Location Sample ID Sample Date	Units	Sub-Slab Soil Gas Residential Threshold Values	Sub-Slab Soil Gas C/I Threshold Values	SS01 AX-VI-SS1 05/04/14	SS01 AX-VI-SS1 12/30/14	SS02 AX-VI-SS2 05/04/14	SS02 AX-VI-SS2 12/30/14	SS03 AX-VI-SS3 05/04/14	SS03 AX-VI-SS3 12/30/14	SS04 AX-VI-SS4 05/04/14	SS04 AX-VI-SS4 12/30/14	T-SS01 AX-VIT-SS01 12/31/14
1,1,1-trichloroethane	(ug/m3)	210.	310000.	60.0	69.8	2.73 U	10.9 U	24.9	68.7	5.06	8.29	1.09 U
1,1-Dichloroethane	(ug/m3)	56.	50000.	8.09 U	8.09 U	2.02 U	8.09 U	2.65	4.45	0.809 U	1.10	0.809 U
1,1-Dichloroethylene	(ug/m3)	56.	12000.	7.93 U	7.93 U	1.98 U	7.93 U	1.98 U	3.96 U	0.793 U	0.793 U	0.793 U
1,2,3-Trichlorobenzene	(ug/m3)	NE	NE	14.8 U	14.8 U	3.71 U	14.8 U	3.71 U	7.42 U	1.48 U	1.48 U	1.48 U
1,2,4-Trichlorobenzene	(ug/m3)	28.	240.	14.8 U	14.8 U	3.71 U	14.8 U	3.71 U	7.42 U	1.48 U	1.48 U	1.48 U
1,2-Dichlorobenzene	(ug/m3)	50.	50000.	12.0 U	12.0 U	3.01 U	12.0 U	3.01 U	6.01 U	1.20 U	1.20 U	1.20 U
1,2-Dichloroethane	(ug/m3)	6.3	31.	8.09 U	8.09 U	2.02 U	8.09 U	2.02 U	4.05 U	0.809 U	0.809 U	0.809 U
1,3-Dichlorobenzene	(ug/m3)	42.	50000.	12.0 U	12.0 U	3.01 U	12.0 U	3.01 U	7.46	1.20 U	3.45	1.20 U
1,4-Dichlorobenzene	(ug/m3)	35.	120.	12.0 U	12.0 U	3.01 U	12.0 U	3.01 U	6.01 U	1.20 U	1.20 U	1.20 U
Chlorobenzene	(ug/m3)	160.	3100.	9.21 U	9.21 U	2.30 U	9.21 U	2.30 U	4.61 U	0.921 U	0.921 U	0.921 U
cis-1,2-Dichloroethylene	(ug/m3)	56.	370.	62.6	40.4	1.98 U	7.93 U	4.40	11.5	29.2	40.8	0.793 U
Tetrachloroethylene	(ug/m3)	98.	290.	74.6	821.	3.39 U	149.	3.39 U	198.	4.06	17.2	1.61
trans-1,2-Dichloroethene	(ug/m3)	56.	3700.	8.84	9.75	1.98 U	7.93 U	1.98 U	3.96 U	1.08	1.68	0.793 U
Trichloroethylene	(ug/m3)	28.	120.	7580.	23200.	168.	3290.	196.	3130.	202.	436.	9.46
Vinyl chloride	(ug/m3)	19.	91.	5.11 U	5.11 U	1.28 U	5.11 U	1.28 U	2.56 U	0.511 U	0.511 U	0.511 U

Notes:

(ug/m3) = Micrograms per cubic meter

NE = Not Established

U = Constituent not detected at listed concentration

J = Estimated concentration

C/I = Commercial/Industrial

Blue shading indicates exceedance of residential threshold value

Orange shading indicates exceedance of C/I threshold value

Soil Gas Threshold Values are taken from the Massachusetts

Department of Environmental Protection Draft Vapor Intrusion

Guidance, dated October 2014.

Table 3
Summary of Soil Gas Results
Interim IRA Status Report
Aerovox Facility
740 Belleville Avenue, New Bedford, Massachusetts

Location Sample ID Sample Date	Units	Sub-Slab Soil Gas Residential Threshold Values	Sub-Slab Soil Gas C/I Threshold Values	T-SS01 AX-VIT-SS01 04/19/15	T-SS02 AX-VIT-SS02 12/31/14	T-SS02 AX-VIT-SS02 04/19/15	T-SS03 AX-VIT-SS03 12/31/14	T-SS03 AX-VIT-SS03 04/19/15	T-SS04 AX-VIT-SS04 12/31/14	T-SS04 AX-VIT-SS04 04/19/15
1,1,1-trichloroethane	(ug/m3)	210.	310000.	2.73 U	1.09 U	1.09 U	1.09 U	2.73 U	1.09 U	2.73 U
1,1-Dichloroethane	(ug/m3)	56.	50000.	2.02 U	0.809 U	0.809 U	0.809 U	2.02 U	0.809 U	2.02 U
1,1-Dichloroethylene	(ug/m3)	56.	12000.	1.98 U	0.793 U	0.793 U	0.793 U	1.98 U	0.793 U	1.98 U
1,2,3-Trichlorobenzene	(ug/m3)	NE	NE	3.71 U	1.48 U	1.48 U	1.48 U	3.71 U	1.48 U	3.71 U
1,2,4-Trichlorobenzene	(ug/m3)	28.	240.	3.71 U	1.48 U	1.48 U	1.48 U	3.71 U	1.48 U	3.71 U
1,2-Dichlorobenzene	(ug/m3)	50.	50000.	3.01 U	1.20 U	1.20 U	1.20 U	3.01 U	1.20 U	3.01 U
1,2-Dichloroethane	(ug/m3)	6.3	31.	2.02 U	0.809 U	0.809 U	0.809 U	2.02 U	0.809 U	2.02 U
1,3-Dichlorobenzene	(ug/m3)	42.	50000.	3.01 U	1.20 U	2.04	1.20 U	3.01 U	1.20 U	3.01 U
1,4-Dichlorobenzene	(ug/m3)	35.	120.	3.01 U	1.20 U	1.20 U	1.20 U	3.01 U	1.20 U	3.01 U
Chlorobenzene	(ug/m3)	160.	3100.	2.30 U	0.921 U	0.921 U	0.921 U	2.30 U	0.921 U	2.30 U
cis-1,2-Dichloroethylene	(ug/m3)	56.	370.	1.98 U	0.793 U	0.793 U	0.793 U	1.98 U	0.793 U	1.98 U
Tetrachloroethylene	(ug/m3)	98.	290.	3.39 U	2.02	2.41	1.53	3.39 U	2.15	3.65
trans-1,2-Dichloroethene	(ug/m3)	56.	3700.	1.98 U	0.793 U	0.793 U	0.793 U	1.98 U	0.793 U	1.98 U
Trichloroethylene	(ug/m3)	28.	120.	12.0	6.18	13.1	1.07 U	2.69 U	4.94	7.31
Vinyl chloride	(ug/m3)	19.	91.	1.28 U	0.511 U	0.511 U	0.511 U	1.28 U	0.511 U	1.28 U

Notes:

(ug/m3) = Micrograms per cubic meter

NE = Not Established

U = Constituent not detected at listed concentration

J = Estimated concentration

C/I = Commercial/Industrial

Blue shading indicates exceedance of residential threshold value

Orange shading indicates exceedance of C/I threshold value

Soil Gas Threshold Values are taken from the Massachusetts

Department of Environmental Protection Draft Vapor Intrusion

Guidance, dated October 2014.

Table 4
Summary of Soil Results
Interim IRA Status Report
Aerovox Facility
740 Belleville Avenue, New Bedford, Massachusetts

LOCATION SAMPLE ID SAMPLE DATE SAMPLE DEPTH (ft bgs)	Units	MCP S1/GW2	MCP S1/GW3	MCP Soil UCLs	B15GS (15-17) 04/21/15	B15GS (22-24) 04/21/15	B15GS (25-29) 04/21/15	B15GS (30-32) 04/21/15	MW-30B MW-30B (1-3) 04/20/15	MW-30B MW-30B (23-25) 04/20/15	MW-31B MW-31B (8-10) 04/20/15	PC-UV-02 PC-UV-02/4-5 03/23/15	PC-UV-05 PC-UV-05/0-2 03/23/15	PC-UV-08 PC-UV-08/0-2 03/24/15	UV-17 UV-17/5-6 04/01/15	UV-17 UV-17/6-7 04/01/15	UV-17 UV-17/7-8 04/01/15	UV-17 UV-17/8-9 04/01/15	UV-17 UV-17/9-10 04/01/15
Volatile Organic Compounds																			
1,1,1-Trichloroethane	(ug/kg)	100	20000	5000000	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
1,1,1-Trichloroethane	(ug/kg)	500000	500000	10000000	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
1,1,2,2-Tetrachloroethane	(ug/kg)	20	10000	4000000	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
1,1,2-Trichloroethane	(ug/kg)	2000	40000	5000000	--	--	--	--	--	0.96 U	80 U	75 U	--	--	3400 U	2200 U	26000 U	34000 U	87000 U J
1,1-Dichloroethane	(ug/kg)	9000	500000	10000000	--	--	--	--	--	0.96 U	80 U	75 U	--	--	3400 U	2200 U	26000 U	34000 U	87000 U J
1,1-Dichloroethane	(ug/kg)	40000	500000	10000000	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
1,2,4-Trichlorobenzene	(ug/kg)	6000	70000	10000000	--	--	--	--	--	2.6 U	210 U	200 U	--	--	50000	87000	78000	610000	230000 U J
1,2-Dichlorobenzene	(ug/kg)	100	1000	4000000	--	--	--	--	--	2.6 U	210 U	200 U	--	--	9200 U	6000 U	68000 U	91000 U	230000 U J
1,2-Dichlorobenzene	(ug/kg)	1000000	300000	10000000	--	--	--	--	--	2.6 U	210 U	200 U	--	--	9200 U	6000 U	68000 U	91000 U	230000 U J
1,2-Dichloroethane	(ug/kg)	100	20000	9000000	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
1,2-Dichloroethane	(ug/kg)	NE	NE	NE	--	--	--	--	--	2.0	53 U	64	--	--	570000	2200000	1600000	2800000	5300000 U J
1,2-Dichloropropane	(ug/kg)	100	30000	10000000	--	--	--	--	--	2.2 U	190 U	180 U	--	--	8100 U	5200 U	60000 U	80000 U	200000 U J
1,3-Dichlorobenzene	(ug/kg)	100000	100000	5000000	--	--	--	--	--	2.6 U	210 U	200 U	--	--	12000	6000 U	68000 U	91000 U	230000 U J
1,3-Dichlorobenzene	(ug/kg)	400	20000	9000000	--	--	--	--	--	2.6 U	210 U	200 U	--	--	9200 U	6000 U	68000 U	91000 U	230000 U J
1,3-Dichloropropene	(ug/kg)	400	9000	4000000	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
1,4-Dichlorobenzene	(ug/kg)	1000	80000	10000000	--	--	--	--	--	2.6 U	210 U	1600	--	--	79000	6000 U	68000 U	91000 U	230000 U J
Bromodichloromethane	(ug/kg)	100	30000	5000000	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
Bromodichloromethane	(ug/kg)	1000	300000	10000000	--	--	--	--	--	2.6 U	210 U	200 U	--	--	9200 U	6000 U	68000 U	91000 U	230000 U J
Carbon Tetrachloride	(ug/kg)	5000	30000	10000000	--	--	--	--	--	0.64 U	53 U	58	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
Chlorobenzene	(ug/kg)	3000	100000	10000000	--	--	--	--	--	0.64 U	53 U	250	--	--	4200	1500 U	17000 U	23000 U	58000 U J
Chloroethane	(ug/kg)	NE	NE	NE	--	--	--	--	--	1.3 U	110 U	100 U	--	--	4600 U	3000 U	34000 U	46000 U	120000 U J
Chloroform	(ug/kg)	200	500000	8000000	--	--	--	--	--	0.96 U	80 U	75 U	--	--	3400 U	2200 U	26000 U	34000 U	87000 U J
Chloromethane	(ug/kg)	NE	NE	NE	--	--	--	--	--	2.6 U J	210 U	200 U	--	--	9200 U	6000 U	68000 U	91000 U	230000 U J
Cis-1,2-Dichloroethene	(ug/kg)	100	100000	5000000	--	--	--	--	--	2.0	53 U	64	--	--	560000	2200000	1600000	2800000	5300000 U J
Cis-1,2-Dichloropropene	(ug/kg)	NE	NE	NE	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
Dibromochloromethane	(ug/kg)	30	20000	5000000	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
Dichlorodifluoromethane	(ug/kg)	NE	NE	NE	--	--	--	--	--	6.4 U	530 U	500 U	--	--	23000 U	15000 U	17000 U	23000 U	58000 U J
Hexachlorobutadiene	(ug/kg)	30000	30000	10000000	--	--	--	--	--	2.6 U	210 U	200 U	--	--	9200 U	6000 U	68000 U	91000 U	230000 U J
Methylene Chloride	(ug/kg)	4000	400000	7000000	--	--	--	--	--	6.4 U	530 U	500 U	--	--	23000 U	15000 U	17000 U	23000 U	58000 U J
p-Chlorotoluene	(ug/kg)	NE	NE	NE	--	--	--	--	--	2.6 U	210 U	200 U	--	--	9200 U	6000 U	68000 U	91000 U	230000 U J
p-Chlorotoluene	(ug/kg)	NE	NE	NE	--	--	--	--	--	2.6 U	210 U	200 U	--	--	9200 U	6000 U	68000 U	91000 U	230000 U J
Tetrachloroethene	(ug/kg)	10000	30000	10000000	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
trans-1,2-Dichloroethene	(ug/kg)	1000	50000	10000000	--	--	--	--	--	0.96 U	80 U	75 U	--	--	5100	6900	26000 U	34000 U	87000 U J
trans-1,3-Dichloropropene	(ug/kg)	NE	NE	NE	--	--	--	--	--	0.64 U	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
Trichloroethene	(ug/kg)	300	30000	600000	--	--	--	--	--	7.7	53 U	50 U	--	--	2300 U	1500 U	17000 U	23000 U	58000 U J
Vinyl chloride	(ug/kg)	700	1000	600000	--	--	--	--	--	1.3 U	110 U	100 U	--	--	210000	160000	180000	240000	310000 U J
Polychlorinated Biphenyls																			
Aroclor 1016	(ug/kg)	NE	NE	NE	--	--	--	--	--	21.5 U	22.0 U	47400 U	21.7 U	21.8 U	51900 U	71500 U	128000 U	99800 U	1090 U J
Aroclor 1221	(ug/kg)	NE	NE	NE	--	--	--	--	--	21.5 U	22.0 U	47400 U	21.7 U	21.8 U	51900 U	71500 U	128000 U	99800 U	1090 U J
Aroclor 1232	(ug/kg)	NE	NE	NE	--	--	--	--	--	21.5 U	22.0 U	47400 U	21.7 U	21.8 U	51900 U	71500 U	128000 U	99800 U	1090 U J
Aroclor 1242	(ug/kg)	NE	NE	NE	--	--	--	--	--	21.5 U	22.0 U	47400 U	144	21.8 U	887000	1250000	2140000	1780000	15500 U J
Aroclor 1248	(ug/kg)	NE	NE	NE	--	--	--	--	--	14.3 U	31600 U	14.5 U	14.5 U	34600 U	47600 U	85400 U	66600 U	725 U J	
Aroclor 1254	(ug/kg)	NE	NE	NE	--	--	--	--	--	21.5 U	72.5	1140000	646	35.7	1350000	1570000	2990000	2540000	21400 U J
Aroclor 1260	(ug/kg)	NE	NE	NE	--	--	--	--	--	14.3 U	14.6 U	31600 U	80	14.5 U	34600 U	47600 U	85400 U	66600 U	725 U J
Aroclor 1262	(ug/kg)	NE	NE	NE	--	--	--	--	--	7.17 U	7.32 U	15800 U	7.25 U	7.26 U	17300 U	23800 U	42700 U	33300 U	362 U J
Aroclor 1268	(ug/kg)	NE	NE	NE	--	--	--	--	--	7.17 U	7.32 U	15800 U	7.25 U	7.26 U	17300 U	23800 U	42700 U	33300 U	362 U J
Total PCBs	(ug/kg)	1000	1000	100000	--	--	--	--	--	7.17 U	72.5	(1140000)	870	35.7	(2240000)	(2820000)	(5130000)	(4320000)	36900 U J
Grain Size																			
% Clay Fine	(%)	NE	NE	NE	0.100 U	0.100 U	0.100 U	0.100 U	0.300	--	--	--	--	--	--	--	--	--	--
% Coarse Gravel	(%)	NE	NE	NE	0.100 U	0.100 U	4.30	31.6	0.100 U	--	--	--	--	--	--	--	--	--	--
% Coarse Sand	(%)	NE	NE	NE	27.1 J	2.40	23.5	7.00	5.40	--	--	--	--	--	--	--	--	--	--
% Fine Gravel	(%)	NE	NE	NE	16.3 J	0.100 U	11.4	6.80	4.80	--	--	--	--	--	--	--	--	--	--
% Fine Sand	(%)	NE	NE	NE	9.20 J	56.7	15.3	21.5	52.0	--	--	--	--	--	--	--	--	--	--
% Medium Sand	(%)	NE	NE	NE	46.2 J	37.6	40.8	26.4	19.7	--	--	--	--	--	--	--	--	--	--
% Silt Fine	(%)	NE	NE	NE	1.20	3.30	4.70	6.70	17.8	--	--	--	--	--	--	--	--	--	--
% Total Fines	(%)	NE	NE	NE	1.20	3.30	4.70	6.70	18.1	--	--	--	--	--	--	--	--	--	--
% Total Gravel	(%)	NE	NE	NE	16.3 J	0.100 U	15.7	38.4	4.80	--	--	--	--	--	--	--	--	--	--
% Total Sand	(%)	NE	NE	NE	82.5	96.7	79.6	54.9	77.1	--	--	--	--	--	--	--	--	--	--
% Cobbles	(%)	NE	NE	NE	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	--	--	--	--	--	--	--	--	--	--

Notes:
(ug/kg) = Micrograms per kilogram
(ft bgs) = Feet below ground surface
U = Constituent not detected at listed reporting limit
J = Estimated concentration/reporting limit
-- = Not analyzed for this constituent
Sample collection depth in feet below ground surface noted in parenthesis in Sample ID
NE = Not Established
Total PCBs calculated by summing detected concentrations
MCP = Massachusetts Contingency Plan
S1/GW3 = MCP Method 1 Soil Category S-1 in a GW-3 Area Soil Standards
S1/GW2 = MCP Method 1 Soil Category S-1 in a GW-2 Area Soil Standards
UCL = MCP Method 3 Soil Upper Concentration Limit
Bold, J, and shaded value indicates concentration is above the UCL
The S-1 standards are shown for informational purposes only because a Method 3 Risk Characterization will be completed

Table 5
 Summary of Groundwater Results for Packer Intervals
 Interim IRA Status Report
 Aerovox Facility
 740 Belleville Avenue, New Bedford, Massachusetts

Unvalidated Results

Location Sample ID Sample Date	Units	MCP GW-3	MCP Groundwater UCLs	MW-32B MW-32B (65-85) 04/28/15	MW-32B MW-32B (105-125) 04/29/15	MW-32B MW-32B (125-145) 04/30/15	MW-32B MW-32B (145-165) 04/30/15	MW-32B MW-32B (NAPL) 04/30/15	MW-32B MW-32B (165-185) 04/30/15	MW-33B MW-33B (32-52) 05/07/15	MW-33B MW-33B (62-72) 05/07/15	MW-33B MW-33B (92-112) 05/08/15	MW-33B MW-33B (112-132) 05/08/15
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	(ug/l)	50000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,1,1-Trichloroethane	(ug/l)	20000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,1,2,2-Tetrachloroethane	(ug/l)	50000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,1,2-Trichloroethane	(ug/l)	50000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,1-Dichloroethane	(ug/l)	20000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,1-Dichloroethene	(ug/l)	30000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,2,4-Trichlorobenzene	(ug/l)	50000	100000	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
1,2-Dibromoethane	(ug/l)	50000	100000	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
1,2-Dichlorobenzene	(ug/l)	2000	80000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,2-Dichloroethane	(ug/l)	20000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,2-Dichloroethene	(ug/l)	NE	NE	3.0	32	1300	590	170	440	1800	2700	3600	2500
1,2-Dichloropropane	(ug/l)	50000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,3-Dichlorobenzene	(ug/l)	50000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
1,3-Dichloropropane	(ug/l)	NE	NE	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
1,3-Dichloropropene	(ug/l)	200	2000	0.50 U	0.50 U	100 U	100 U	50 U	100 U	25 U	120 U	250 U	120 U
1,4-Dichlorobenzene	(ug/l)	8000	80000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
Bromodichloromethane	(ug/l)	50000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
Bromoform	(ug/l)	50000	100000	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
Carbon Tetrachloride	(ug/l)	5000	50000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
Chlorobenzene	(ug/l)	1000	10000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
Chloroethane	(ug/l)	NE	NE	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
Chloroform	(ug/l)	20000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
Chloromethane	(ug/l)	NE	NE	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
cis-1,2-Dichloroethene	(ug/l)	50000	100000	3.0	32	1300	590	170	440	1800	2700	3600	2500
cis-1,3-Dichloropropene	(ug/l)	NE	NE	0.50 U	0.50 U	100 U	100 U	50 U	100 U	25 U	120 U	250 U	120 U
Dibromochloromethane	(ug/l)	50000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
Dichlorodifluoromethane	(ug/l)	NE	NE	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
Hexachlorobutadiene	(ug/l)	3000	30000	0.60 U	0.60 U	120 U	120 U	60 U	120 U	30 U	150 U	300 U	150 U
Methylene Chloride	(ug/l)	50000	100000	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
o-Chlorotoluene	(ug/l)	NE	NE	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
p-Chlorotoluene	(ug/l)	NE	NE	2.0 U	2.0 U	400 U	400 U	200 U	400 U	100 U	500 U	1000 U	500 U
Tetrachloroethene	(ug/l)	30000	100000	1.0 U	1.0 U	340	200 U	100 U	200 U	56	250 U	500 U	250 U
trans-1,2-Dichloroethene	(ug/l)	50000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
trans-1,3-Dichloropropene	(ug/l)	NE	NE	0.50 U	0.50 U	100 U	100 U	50 U	100 U	25 U	120 U	250 U	120 U
Trichloroethene	(ug/l)	5000	50000	19	24	[110000]	[54000]	[10000]	[34000]	[9800]	[26000]	[63000]	[34000]
Vinyl chloride	(ug/l)	50000	100000	1.0 U	1.0 U	200 U	200 U	100 U	200 U	50 U	250 U	500 U	250 U
Total CVOCs	(ug/l)	NE	NE	22	56	111640	54590	10170	34440	11816	28700	66600	36500
Polychlorinated Biphenyls													
Aroclor 1016	(ug/l)	NE	NE	--	--	0.250 U	--	0.500 U	0.250 U	--	--	1.25 U	--
Aroclor 1221	(ug/l)	NE	NE	--	--	0.250 U	--	0.500 U	0.250 U	--	--	1.25 U	--
Aroclor 1232	(ug/l)	NE	NE	--	--	0.250 U	--	0.500 U	0.250 U	--	--	1.25 U	--
Aroclor 1242	(ug/l)	NE	NE	--	--	2.81	--	0.500 U	3.13	--	--	10.6	--
Aroclor 1248	(ug/l)	NE	NE	--	--	0.250 U	--	0.500 U	0.250 U	--	--	1.25 U	--
Aroclor 1254	(ug/l)	NE	NE	--	--	0.250 U	--	0.500 U	1.29	--	--	1.25 U	--
Aroclor 1260	(ug/l)	NE	NE	--	--	0.250 U	--	0.500 U	0.250 U	--	--	1.25 U	--
Aroclor 1262	(ug/l)	NE	NE	--	--	0.250 U	--	0.500 U	0.250 U	--	--	1.25 U	--
Aroclor 1268	(ug/l)	NE	NE	--	--	0.250 U	--	0.500 U	0.250 U	--	--	1.25 U	--
Total PCBs	(ug/l)	10	100	--	--	2.81	--	0.500 U	4.42	--	--	[10.6]	--

Notes:
 (ug/l) = Micrograms per liter
 U = Constituent not detected at listed reporting limit
 J = Estimated concentration/reporting limit
 ND = Not detected
 NE = Not established
 Sample collection depth interval in feet below ground surface
 noted in parenthesis in Sample ID
 -- = Not analyzed for this constituent
Bold and yellow shaded value indicates concentration is above Method 1 GW-3 standard
Bold and pink shaded value indicates concentration is above UCL
 Total CVOCs and Total PCBs calculated by: summing detected concentrations
 MCP = Massachusetts Contingency Plan
 MCP GW-3 = MCP Method 1: GW-3 Water Quality Standards

Table 5
 Summary of Groundwater Results for Packer Intervals
 Interim IRA Status Report
 Aerovox Facility
 740 Belleville Avenue, New Bedford, Massachusetts

Unvalidated Results

Location Sample ID Sample Date	Units	MCP GW-3	MCP Groundwater UCLs	MW-33B MW-33B (112-132) 05/08/15	MW-33B MW-33B(132-152) 05/11/15	MW-33B MW-33B(152-172) 05/11/15	MW-33B MW-33B(172-192) 05/12/15	MW-33B MW-33B (192-212) 05/13/15	MW-33B MW-33B (212-232) 05/13/15	MW-33B MW-33B (232-252) 05/14/15	MW-33B MW-33B (252-272) 05/15/15	MW-33B MW-33B (272-292) 05/15/15	MW-34B MW-34B (38.5-58) 05/01/15
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	(ug/l)	50000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,1,1-Trichloroethane	(ug/l)	20000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,1,2,2-Tetrachloroethane	(ug/l)	50000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,1,2-Trichloroethane	(ug/l)	50000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,1-Dichloroethane	(ug/l)	20000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,1-Dichloroethene	(ug/l)	30000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,2,4-Trichlorobenzene	(ug/l)	50000	100000	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
1,2-Dibromoethane	(ug/l)	50000	100000	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
1,2-Dichlorobenzene	(ug/l)	2000	80000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,2-Dichloroethane	(ug/l)	20000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,2-Dichloroethene	(ug/l)	NE	NE	2700	2800	610	730	1800	2400	1600	1200	2400	200
1,2-Dichloropropane	(ug/l)	50000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,3-Dichlorobenzene	(ug/l)	50000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
1,3-Dichloropropane	(ug/l)	NE	NE	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
1,3-Dichloropropene	(ug/l)	200	2000	120 U	200 U	50 U	50 U	120 U	250 U	100 U	100 U	250 U	12 U
1,4-Dichlorobenzene	(ug/l)	8000	80000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
Bromodichloromethane	(ug/l)	50000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
Bromotorm	(ug/l)	50000	100000	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
Carbon Tetrachloride	(ug/l)	5000	50000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
Chlorobenzene	(ug/l)	1000	10000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
Chloroethane	(ug/l)	NE	NE	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
Chloroform	(ug/l)	20000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
Chloromethane	(ug/l)	NE	NE	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
cis-1,2-Dichloroethene	(ug/l)	50000	100000	2700	2800	610	730	1800	2400	1600	1200	2400	200
cis-1,3-Dichloropropene	(ug/l)	NE	NE	120 U	200 U	50 U	50 U	120 U	250 U	100 U	100 U	250 U	12 U
Dibromochloromethane	(ug/l)	50000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
Dichlorodifluoromethane	(ug/l)	NE	NE	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
Hexachlorobutadiene	(ug/l)	3000	30000	150 U	240 U	60 U	60 U	150 U	300 U	120 U	120 U	300 U	15 U
Methylene Chloride	(ug/l)	50000	100000	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
o-Chlorotoluene	(ug/l)	NE	NE	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
p-Chlorotoluene	(ug/l)	NE	NE	500 U	800 U	200 U	200 U	500 U	1000 U	400 U	400 U	1000 U	50 U
Tetrachloroethene	(ug/l)	30000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
trans-1,2-Dichloroethene	(ug/l)	50000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
trans-1,3-Dichloropropene	(ug/l)	NE	NE	120 U	200 U	50 U	50 U	120 U	250 U	100 U	100 U	250 U	12 U
Trichloroethene	(ug/l)	5000	50000	[40000]	[41000]	[7500]	[15000]	[26000]	[41000]	[22000]	[18000]	[47000]	3200
Vinyl chloride	(ug/l)	50000	100000	250 U	400 U	100 U	100 U	250 U	500 U	200 U	200 U	500 U	25 U
Total CVOcs	(ug/l)	NE	NE	42700	43800	8110	15730	29800	43400	23600	19200	49400	3400
Polychlorinated BiPhenyls													
Aroclor 1016	(ug/l)	NE	NE	--	--	--	--	--	--	--	--	0.250 U	--
Aroclor 1221	(ug/l)	NE	NE	--	--	--	--	--	--	--	--	0.250 U	--
Aroclor 1232	(ug/l)	NE	NE	--	--	--	--	--	--	--	--	0.250 U	--
Aroclor 1242	(ug/l)	NE	NE	--	--	--	--	--	--	--	--	3.64	--
Aroclor 1248	(ug/l)	NE	NE	--	--	--	--	--	--	--	--	0.250 U	--
Aroclor 1254	(ug/l)	NE	NE	--	--	--	--	--	--	--	--	0.250 U	--
Aroclor 1260	(ug/l)	NE	NE	--	--	--	--	--	--	--	--	0.250 U	--
Aroclor 1262	(ug/l)	NE	NE	--	--	--	--	--	--	--	--	0.250 U	--
Aroclor 1268	(ug/l)	NE	NE	--	--	--	--	--	--	--	--	0.250 U	--
Total PCBs	(ug/l)	10	100	--	--	--	--	--	--	--	--	3.64	--

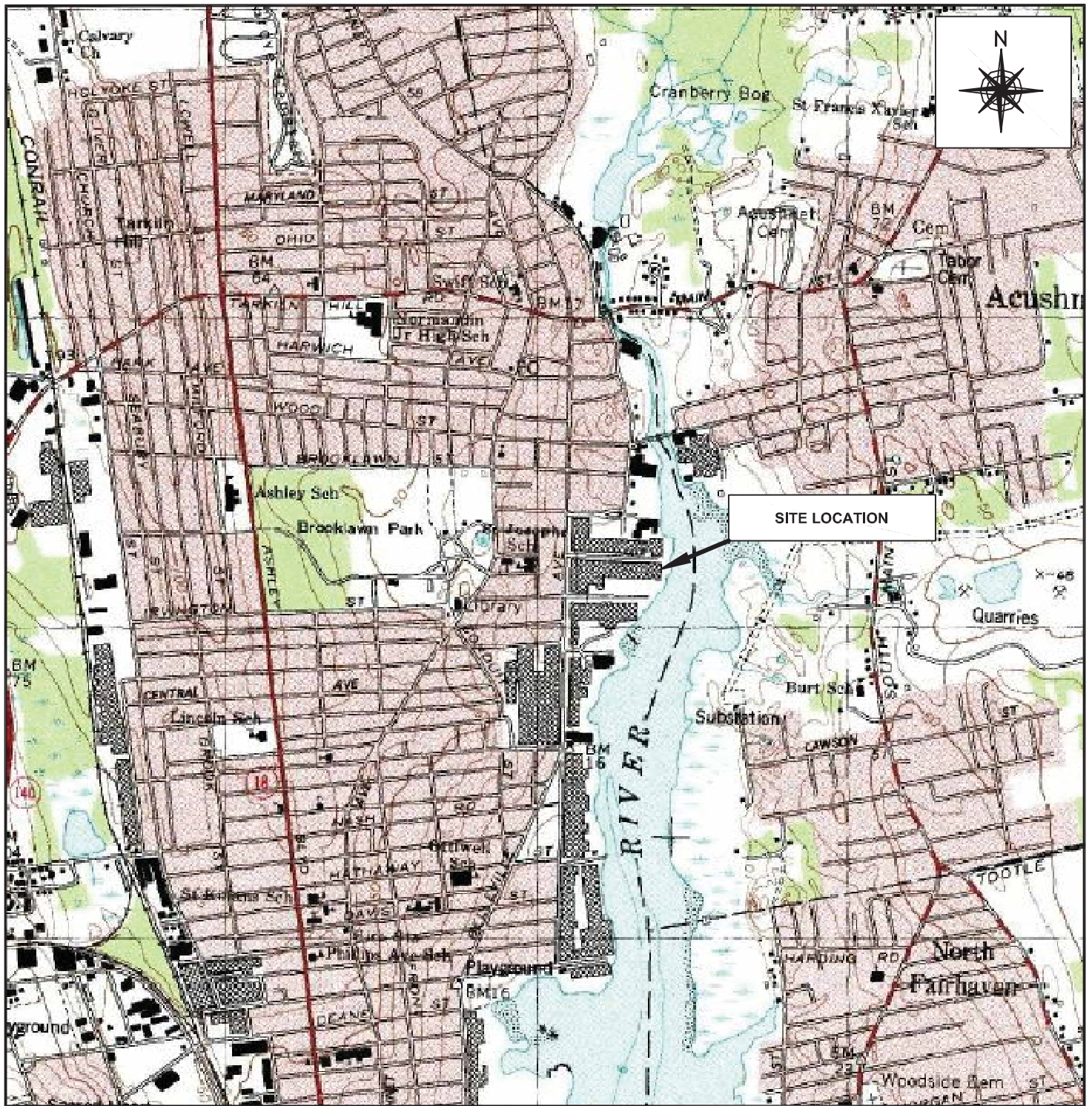
Notes:
 (ug/l) = Micrograms per liter
 U = Constituent not detected at listed reporting limit
 J = Estimated concentration/reporting limit
 ND = Not detected
 NE = Not established
 Sample collection depth interval in feet below ground surface
 noted in parenthesis in Sample ID
 -- = Not analyzed for this constituent
Bold and yellow shaded value indicates concentration is above Method 1 GW-3 standard
Bold and pink shaded value indicates concentration is above UCL
 Total CVOcs and Total PCBs calculated by: summing detected concentrations
 MCP = Massachusetts Contingency Plan
 MCP GW-3 = MCP Method 1: GW-3 Water Quality Standards

Table 5
 Summary of Groundwater Results for Packer Intervals
 Interim IRA Status Report
 Aerovox Facility
 740 Belleville Avenue, New Bedford, Massachusetts

Unvalidated Results

Location Sample ID Sample Date	Units	MCP GW-3	MCP Groundwater UCLs	MW-34B MW-34B (58-78) 05/04/15	MW-34B MW-34B (78-98) 05/04/15	MW-34B MW-34B(98-118) 05/05/15	MW-34B MW-34B(118-138) 05/05/15	MW-34B MW-34B(138-158) 05/06/15	MW-34B MW-34B(158-178) 05/06/15	MW-34B MW-34B(178-198) 05/06/15
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	(ug/l)	50000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
1,1,1-Trichloroethane	(ug/l)	20000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
1,1,2,2-Tetrachloroethane	(ug/l)	50000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
1,1,2-Trichloroethane	(ug/l)	50000	100000	500 U	500 U	1000 U	1000 U	1000 U	1200	1000 U
1,1-Dichloroethane	(ug/l)	20000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
1,1-Dichloroethene	(ug/l)	30000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
1,2,4-Trichlorobenzene	(ug/l)	50000	100000	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
1,2-Dibromoethane	(ug/l)	50000	100000	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
1,2-Dichlorobenzene	(ug/l)	2000	80000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
1,2-Dichloroethane	(ug/l)	20000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
1,2-Dichloroethene	(ug/l)	NE	NE	2700	2400	5000	7200	5400	7300	8200
1,2-Dichloropropane	(ug/l)	50000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
1,3-Dichlorobenzene	(ug/l)	50000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
1,3-Dichloropropane	(ug/l)	NE	NE	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
1,3-Dichloropropene	(ug/l)	200	2000	250 U	250 U	500 U	500 U	500 U	500 U	500 U
1,4-Dichlorobenzene	(ug/l)	8000	80000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
Bromodichloromethane	(ug/l)	50000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
Bromoform	(ug/l)	50000	100000	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
Carbon Tetrachloride	(ug/l)	5000	50000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
Chlorobenzene	(ug/l)	1000	10000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
Chloroethane	(ug/l)	NE	NE	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
Chloroform	(ug/l)	20000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
Chloromethane	(ug/l)	NE	NE	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
cis-1,2-Dichloroethene	(ug/l)	50000	100000	2400	2400	5000	7200	5400	7300	8200
cis-1,3-Dichloropropene	(ug/l)	NE	NE	250 U	250 U	500 U	500 U	500 U	500 U	500 U
Dibromochloromethane	(ug/l)	50000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
Dichlorodifluoromethane	(ug/l)	NE	NE	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
Hexachlorobutadiene	(ug/l)	3000	30000	300 U	300 U	600 U	600 U	600 U	600 U	600 U
Methylene Chloride	(ug/l)	50000	100000	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
o-Chlorotoluene	(ug/l)	NE	NE	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
p-Chlorotoluene	(ug/l)	NE	NE	1000 U	1000 U	2000 U	2000 U	2000 U	2000 U	2000 U
Tetrachloroethene	(ug/l)	30000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
trans-1,2-Dichloroethene	(ug/l)	50000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
trans-1,3-Dichloropropene	(ug/l)	NE	NE	250 U	250 U	500 U	500 U	500 U	500 U	500 U
Trichloroethene	(ug/l)	5000	50000	[60000.]	[60000.]	[110000.]	[140000.]	[140000.]	[470000.]	[320000.]
Vinyl chloride	(ug/l)	50000	100000	500 U	500 U	1000 U	1000 U	1000 U	1000 U	1000 U
Total CVOCs	(ug/l)	NE	NE	62700	58400	115000	147200	145500	478500	328200
Polychlorinated Biphenyls										
Aroclor 1016	(ug/l)	NE	NE	--	--	--	--	--	0.250 U	0.250 U
Aroclor 1221	(ug/l)	NE	NE	--	--	--	--	--	0.250 U	0.250 U
Aroclor 1232	(ug/l)	NE	NE	--	--	--	--	--	0.250 U	0.250 U
Aroclor 1242	(ug/l)	NE	NE	--	--	--	--	--	0.642	0.250 U
Aroclor 1248	(ug/l)	NE	NE	--	--	--	--	--	0.250 U	0.250 U
Aroclor 1254	(ug/l)	NE	NE	--	--	--	--	--	0.250 U	0.250 U
Aroclor 1260	(ug/l)	NE	NE	--	--	--	--	--	0.250 U	0.250 U
Aroclor 1262	(ug/l)	NE	NE	--	--	--	--	--	0.250 U	0.250 U
Aroclor 1268	(ug/l)	NE	NE	--	--	--	--	--	0.250 U	0.250 U
Total PCBs	(ug/l)	10	100	--	--	--	--	--	0.642	0.250 U
Notes:										
(ug/l) = Micrograms per liter										
U = Constituent not detected at listed reporting limit										
J = Estimated concentration/reporting limit										
ND = Not detected										
NE = Not established										
Sample collection depth interval in feet below ground surface										
noted in parenthesis in Sample ID										
-- = Not analyzed for this constituent										
Bold and yellow shaded value indicates concentration is above Method 1 GW-3 standard										
Bold and pink shaded value indicates concentration is above UCL										
Total CVOCs and Total PCBs calculated by: summing detected concentrations										
MCP = Massachusetts Contingency Plan										
MCP GW-3 = MCP Method 1: GW-3 Water Quality Standards										

FIGURES



SITE LOCATION PLAN

**AEROVOX FACILITY
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS**

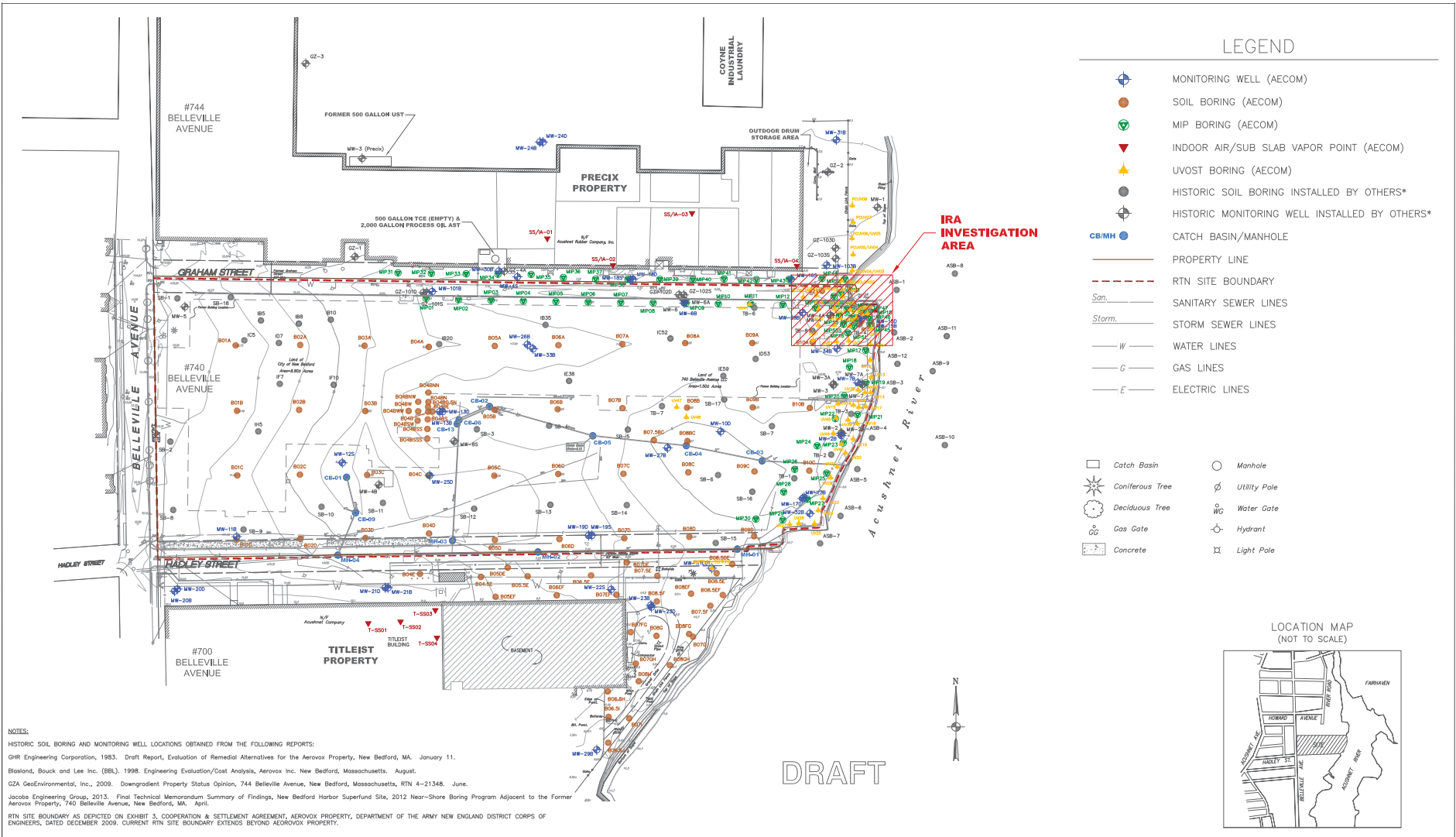


5 Industrial Way
Salem, New Hampshire 03079
TEL: (603) 893-0616
FAX: (603) 893-6240
http://www.urscorp.com



BASEMAP SOURCE:
USGS 7.5-minute Series Topographic Map
New Bedford North Quadrangle
1979 (photorevised 1975)

SCALE:	NTS	DRAWN BY:	KP	JOB NO.:	39744051
DATE:	06/14	APPR. BY:	JU	FIGURE 1	

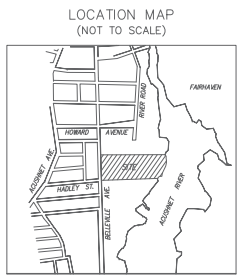


LEGEND

- MONITORING WELL (AECOM)
- SOIL BORING (AECOM)
- MIP BORING (AECOM)
- INDOOR AIR/SUB SLAB VAPOR POINT (AECOM)
- UVOST BORING (AECOM)
- HISTORIC SOIL BORING INSTALLED BY OTHERS*
- HISTORIC MONITORING WELL INSTALLED BY OTHERS*
- CATCH BASIN/MANHOLE
- PROPERTY LINE
- RTN SITE BOUNDARY
- San. SANITARY SEWER LINES
- Storm. STORM SEWER LINES
- W WATER LINES
- G GAS LINES
- E ELECTRIC LINES
- Catch Basin
- Manhole
- Coniferous Tree
- Deciduous Tree
- Utility Pole
- Water Gate
- Gas Gate
- Concrete
- Light Pole

NOTES:
 HISTORIC SOIL BORING AND MONITORING WELL LOCATIONS OBTAINED FROM THE FOLLOWING REPORTS:
 GHR Engineering Corporation, 1983. Draft Report, Evaluation of Remedial Alternatives for the Aerovox Property, New Bedford, MA. January 11.
 Blastand, Bouck and Lee Inc. (BBL). 1998. Engineering Evaluation/Cost Analysis, Aerovox Inc. New Bedford, Massachusetts. August.
 GZA Geoenvironmental, Inc., 2009. Downgradient Property Status Opinion, 744 Belleville Avenue, New Bedford, Massachusetts, RTN 4-21348. June.
 Jacobs Engineering Group, 2013. Final Technical Memorandum Summary of Findings, New Bedford Harbor Superfund Site, 2012 Near-Shore Boring Program Adjacent to the Former Aerovox Property, 740 Belleville Avenue, New Bedford, MA. April.
 RTN SITE BOUNDARY AS DEPICTED ON EXHIBIT 3, COOPERATION & SETTLEMENT AGREEMENT, AEROVOX PROPERTY, DEPARTMENT OF THE ARMY NEW ENGLAND DISTRICT CORPS OF ENGINEERS, DATED DECEMBER 2009. CURRENT RTN SITE BOUNDARY EXTENDS BEYOND AEROVOX PROPERTY.

DRAFT



AECOM
 1155 ELM ST, SUITE 401
 MANCHESTER, NH 03101-1508
 Tel: 603.606.4800
 Fax: 603.606.4801
 www.aecom.com



PROJECT NO:	60422003	CLIENT:	AVX CORPORATION
DESIGN:	DB	SCALE:	AS SHOWN
APPROVED:	MW	DATE:	JUNE 2015
DRAWN:	FS	FILE NO:	AVX - IRA Status Report - 2015-02

PROJECT:	IRA STATUS REPORT 740 BELLEVILLE AVENUE NEW BEDFORD, MA
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TITLE:	SITE PLAN
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FIGURE NO.:	2
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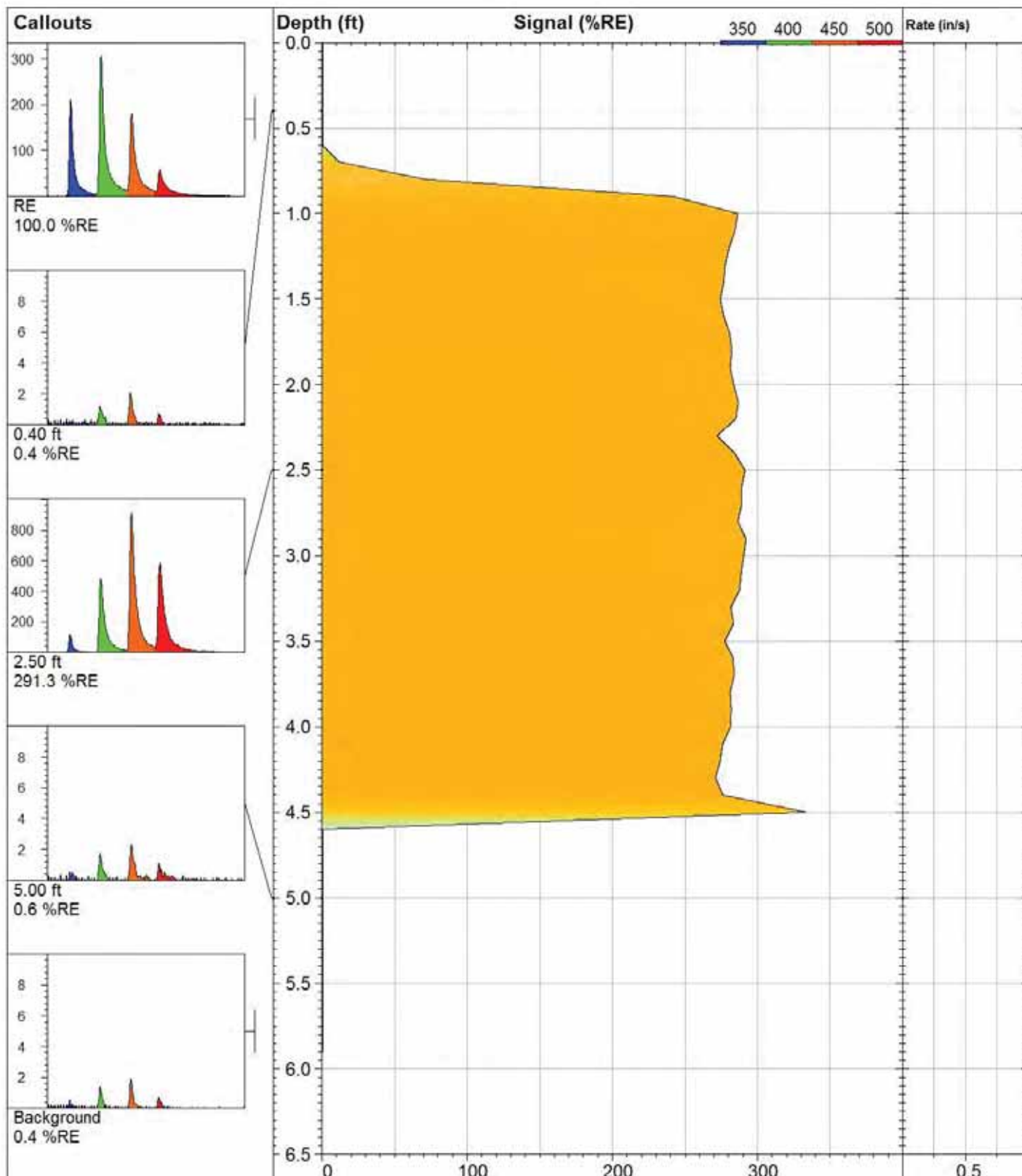
APPENDIX A

UVOST Summary Table and Logs

Environmental Visualization System 3-D UVOST Presentation

UVOST Summary Table and Logs

UVOST Wavelength Signature for Site DNAPL Sample Provided to ZEBRA for Screening



DNAPL-13		UVOST By Dakota www.DakotaTechnologies.com
Site: Aerovox IRA	Y Coord.(Lat-N) / System: Unavailable / NA	Final depth: 5.90 ft
Client / Job: URS / 39744051.40003	X Coord.(Lng-E) / Fix: Unavailable / NA	Max signal: 333.3 %RE @ 4.50 ft
Operator / Unit: j diamond / UVOST1317	Elevation: Unavailable	Date & Time: 2015-01-16 09:24 EST

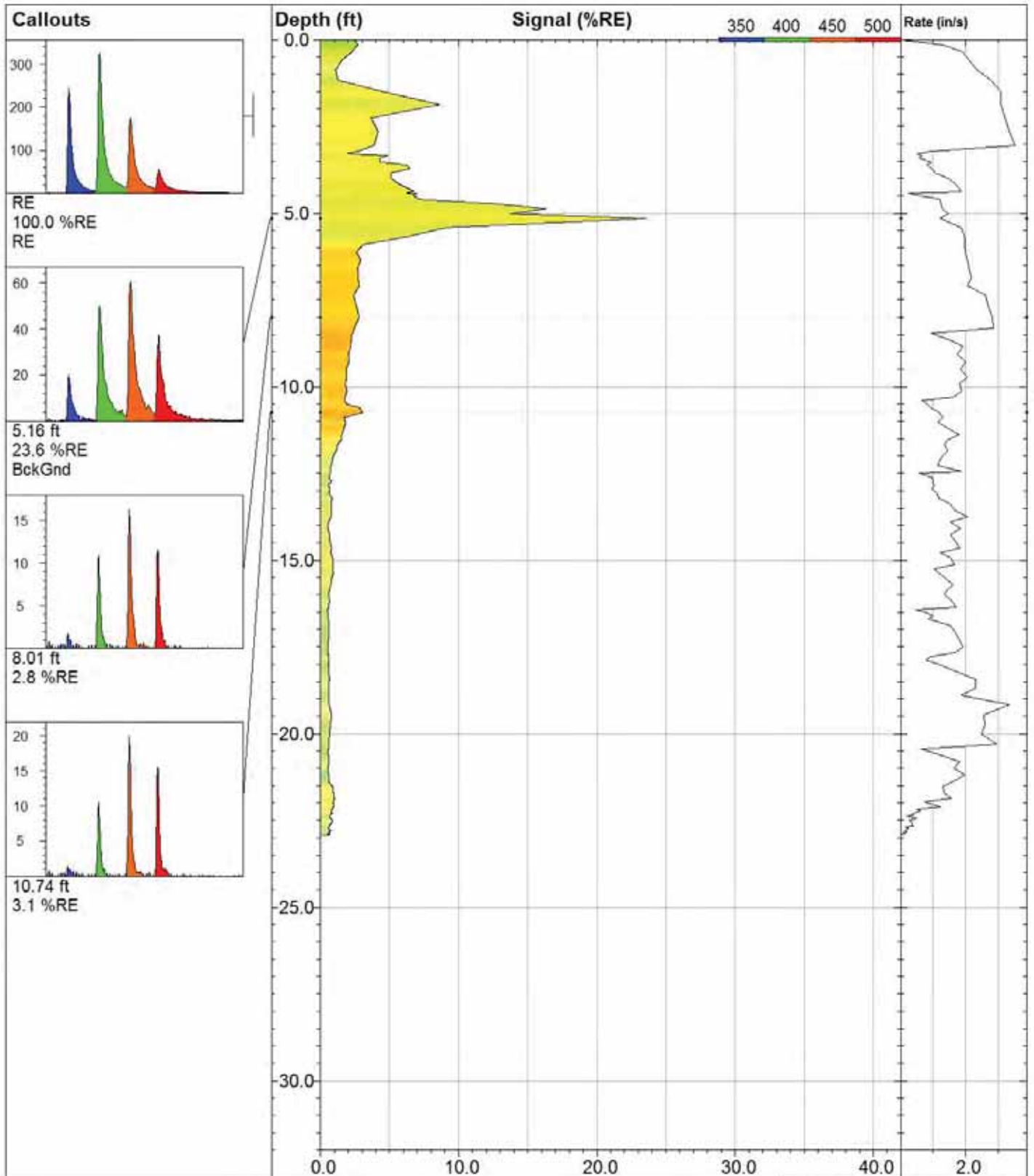
Former Aerovox Facility
ZEBRA UVOST Summary

File	Date/Time	Final Depth	Max Signal	Max Signal Depth	RE Area	Background Area
uv-01	3/30/2015 9:53	22.9246	23.58735	5.154664	9451.46	89.67
uv-02	3/30/2015 10:13	20.50452	3.49425	0.2809749	10690.64	82.85
uv-03	3/30/2015 10:46	24.43274	2.913732	8.215345	10571.67	19.56
uv-04	3/30/2015 11:12	25.55664	2.255177	9.435638	10130.37	35.65
uv-05	3/30/2015 11:28	30.87743	2.248705	11.20353	10282.51	18.91
uv-06	3/30/2015 11:49	27.49475	2.933473	0.1886835	12744.18	98.52
uv-07	3/30/2015 12:07	28.99879	2.662493	0.4327426	12701.5	54.1
uv-08	3/30/2015 13:13	28.16745	41.77462	24.22355	11932.41	95.04
uv-09	3/30/2015 13:33	28.0485	36.87449	18.83026	11202.5	47.83
uv-10	3/30/2015 13:55	28.01774	16.06322	4.570154	11198.7	17.49
uv-11	3/30/2015 14:12	26.05912	7.524924	3.059961	10343.57	94.3
uv-12	3/30/2015 14:34	27.28351	12.36943	2.807699	10254.69	35.94
uv-13	3/30/2015 14:51	28.67065	8.440681	9.335144	10327.11	33.79
uv-14	3/31/2015 7:18	27.10303	5.915479	6.746172	11056.7	73.81
uv-15	3/31/2015 7:46	30.18832	7.316771	4.58451	10887.24	81.88
uv-16	3/31/2015 8:06	29.05212	11.0837	3.792138	10199.38	48.41
uv-17	3/31/2015 8:25	28.34588	137.1114	8.222829	9426.09	34.85
uv-18	3/31/2015 8:43	26.43648	15.39191	7.156354	10513.9	71.63
uv-19	3/31/2015 8:57	28.69116	6.86878	7.64242	9924.41	43.21
uv-20	3/31/2015 9:12	29.25854	7.851025	2.013996	9915.56	32.67
uv-21	3/31/2015 9:28	20.6768	6.740108	7.045605	10608.21	5.54
uv-22a	3/31/2015 9:58	24.32948	3.220589	8.824467	11011.82	62.66
uv-23	3/31/2015 10:13	25.37411	3.204519	1.726868	10310.58	32.43
uv-24	3/31/2015 10:30	28.37255	4.999409	8.034145	9509.28	58.91
uv-25	3/31/2015 10:48	28.52298	3.587975	5.626373	10061.9	66.74
uv-26	3/31/2015 11:06	34.49391	3.368065	7.150201	10456.91	23.99
uv-27c	3/31/2015 12:06	35.23839	4.356769	8.220778	8849.96	59.67
uv-28	4/1/2015 7:14	27.19942	4.233508	7.306071	9621.96	86.57
uv-29	4/1/2015 7:41	25.95452	4.128783	0.5004225	9859.54	40.91
uv-30	4/1/2015 7:58	29.61202	4.915942	4.088189	10332.2	28.83
uv-31	4/1/2015 9:04	27.77573	2.877745	5.587407	9190.41	85.31
uv-32	4/1/2015 9:19	25.49922	5.205167	0.2830262	8991.76	48.8
uv-33	4/1/2015 9:42	24.72602	2.827134	6.262156	9080.22	30.19
uv-34	4/1/2015 10:00	30.55339	116.9654	5.454096	8656.8	39
uv-35	4/1/2015 10:18	30.63132	98.48295	6.110389	6327.09	58.9
uv-36	4/1/2015 10:40	22.93076	23.67149	5.091085	6512.28	65.03
uv-37	4/1/2015 10:56	25.45338	9.170877	8.097723	5942.84	79.66
uv-38	4/1/2015 11:15	29.01725	102.2116	4.869587	8857.03	35.48
uv-39	4/1/2015 11:29	20.63373	42.1752	7.70805	9210.59	80.68
uv-40	4/1/2015 11:45	27.33273	73.23485	3.882377	8859.4	47.05
uv-41	4/1/2015 12:00	8.177709	4.414172	2.05E-03	9276.34	42.45
uv-41-02	4/6/2015 9:12	30.48571	5.398646	6.668237	8604.24	68.33
uv-42	4/6/2015 9:27	27.31017	60.18366	6.294971	8733.44	53.73
uv-43	4/6/2015 9:42	26.82001	10.24503	7.283511	9749.96	7.7
uv-44	4/6/2015 10:13	27.99928	40.88816	6.052963	9413.8	190.54

Former Aerovox Facility
ZEBRA UVOST Summary

uv-45	4/6/2015 10:32	26.07552	19.62234	4.637834	10397.95	168.86
uv-46	4/6/2015 10:46	28.49355	21.81345	4.664495	8544.87	157.69
uv-47	4/6/2015 10:58	26.56159	7.89136	6.744121	8479.56	116.81
uv-48	4/6/2015 11:31	30.46315	14.64887	1.181326	7240.99	118.47

[STATS]
File Count=49
Total Depth=1322.8
Max Depth=35.2
Max Signal=137.1



uv-01

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
ZACH / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

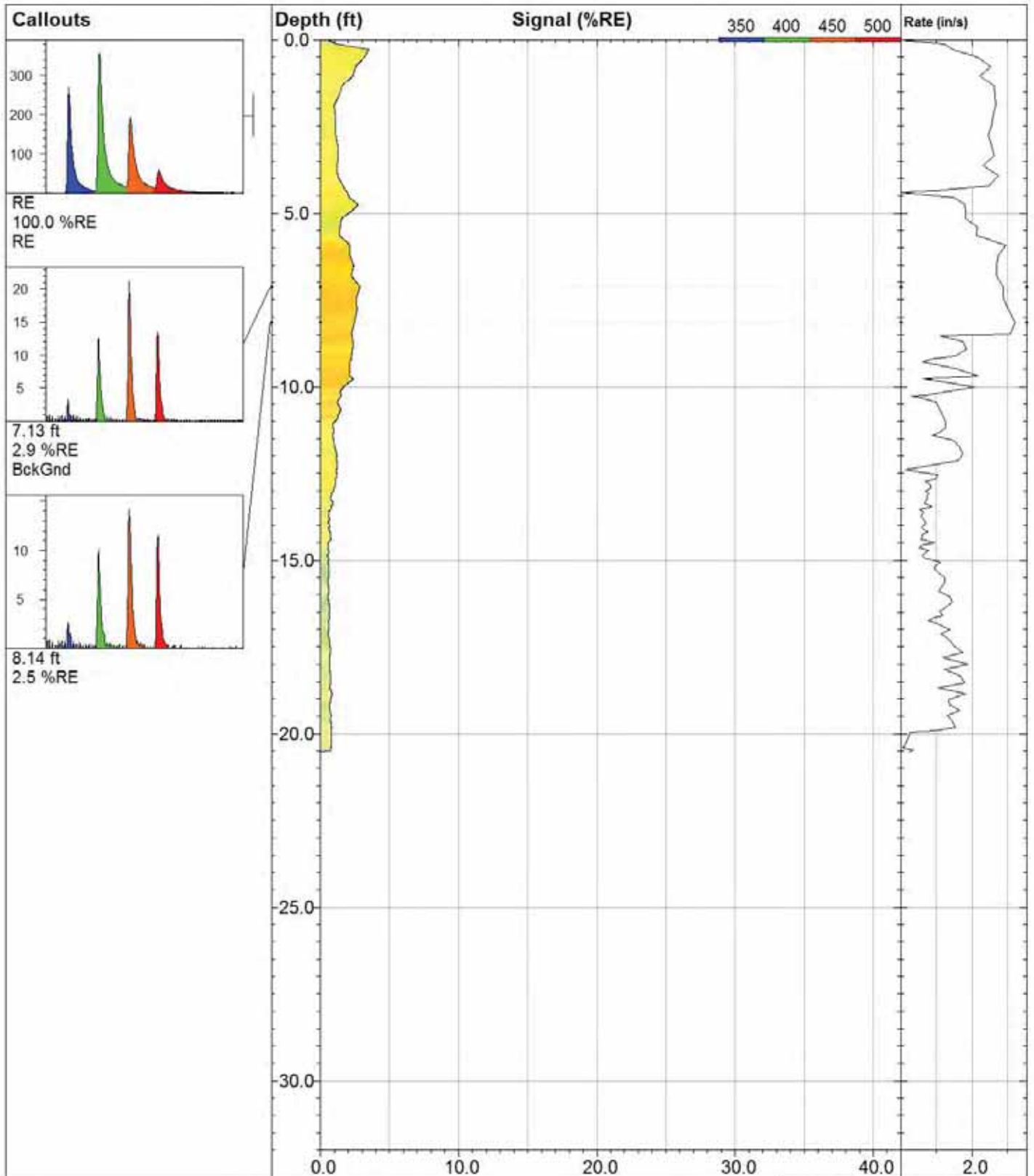
X Coord.(Lng-E) / Fix:
Unavailable / NA

Elevation:
Unavailable

Final depth:
22.92 ft

Max signal:
23.6 %RE @ 5.15 ft

Date & Time:
2015-03-30 09:53 EDT



uv-02

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
ZACH / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

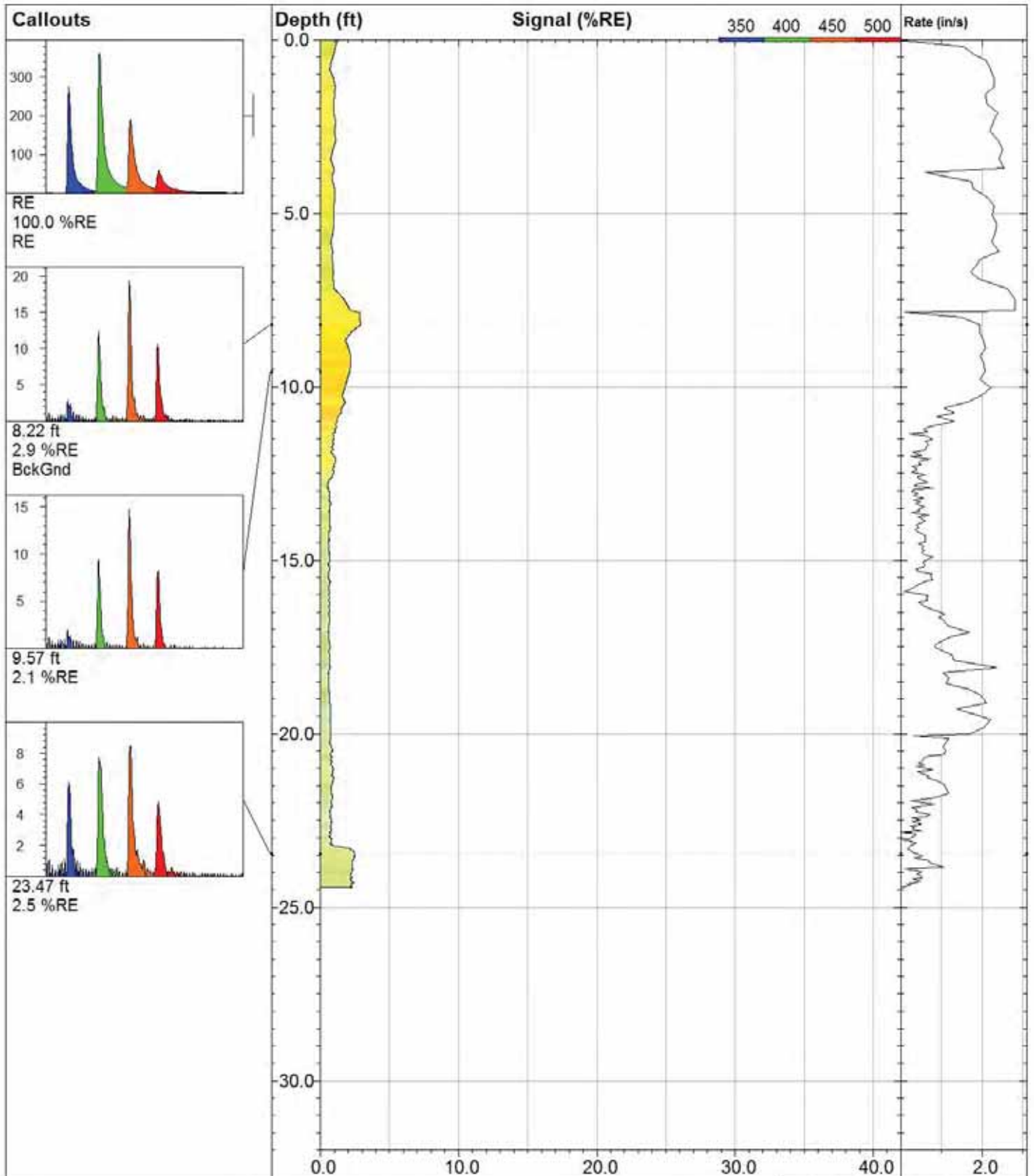
X Coord.(Lng-E) / Fix:
Unavailable / NA

Elevation:
Unavailable

Final depth:
20.50 ft

Max signal:
3.5 %RE @ 0.28 ft

Date & Time:
2015-03-30 10:13 EDT



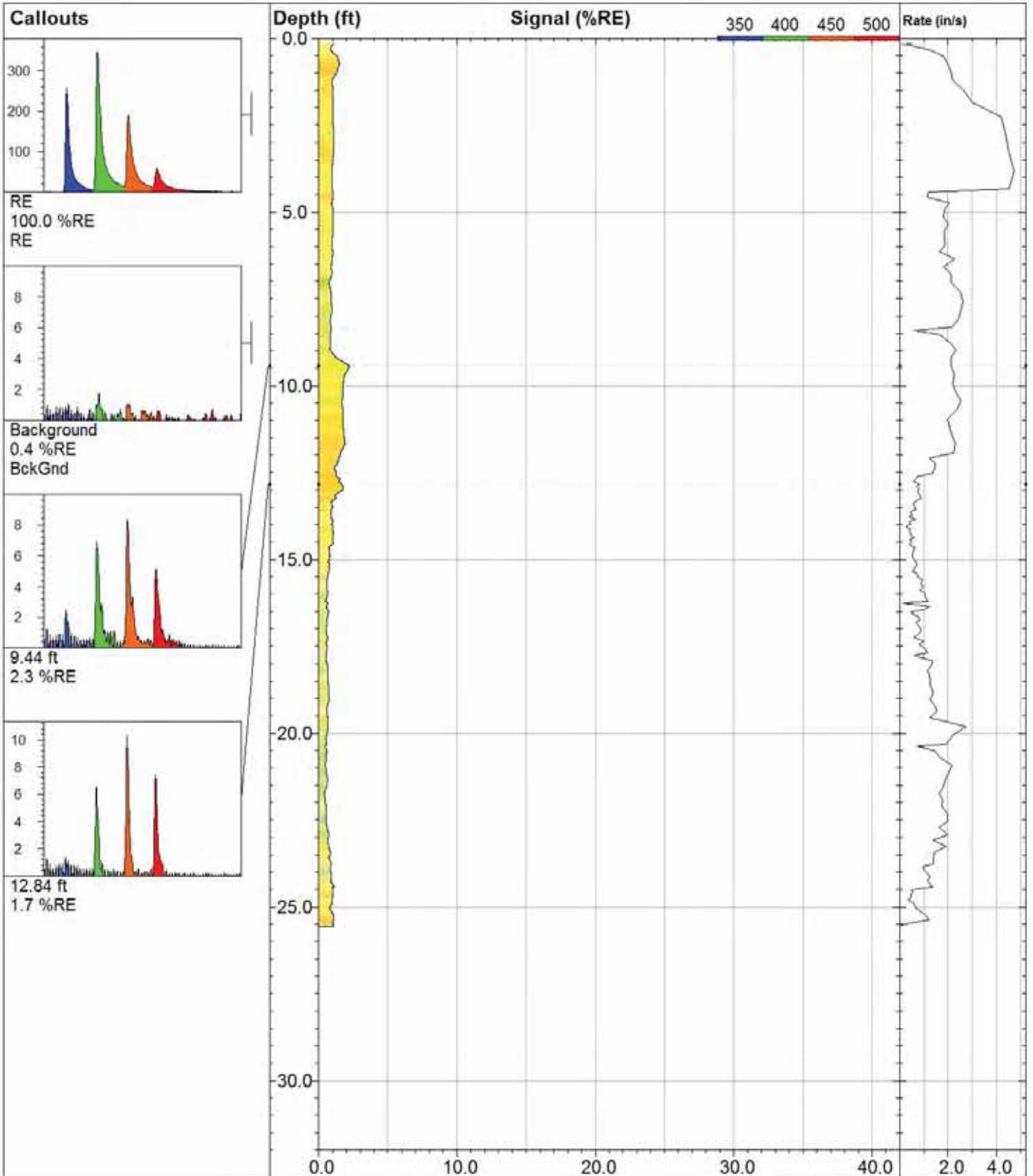
uv-03

Site:
744 Belleville ave
 Client / Job:
AECOM /
 Operator / Unit:
ZACH / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA
 X Coord.(Lng-E) / Fix:
Unavailable / NA
 Elevation:
Unavailable

UVOST By Dakota
 www.DakotaTechnologies.com

Final depth:
24.43 ft
 Max signal:
2.9 %RE @ 8.22 ft
 Date & Time:
2015-03-30 10:46 EDT



uv-04

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
ZACH / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

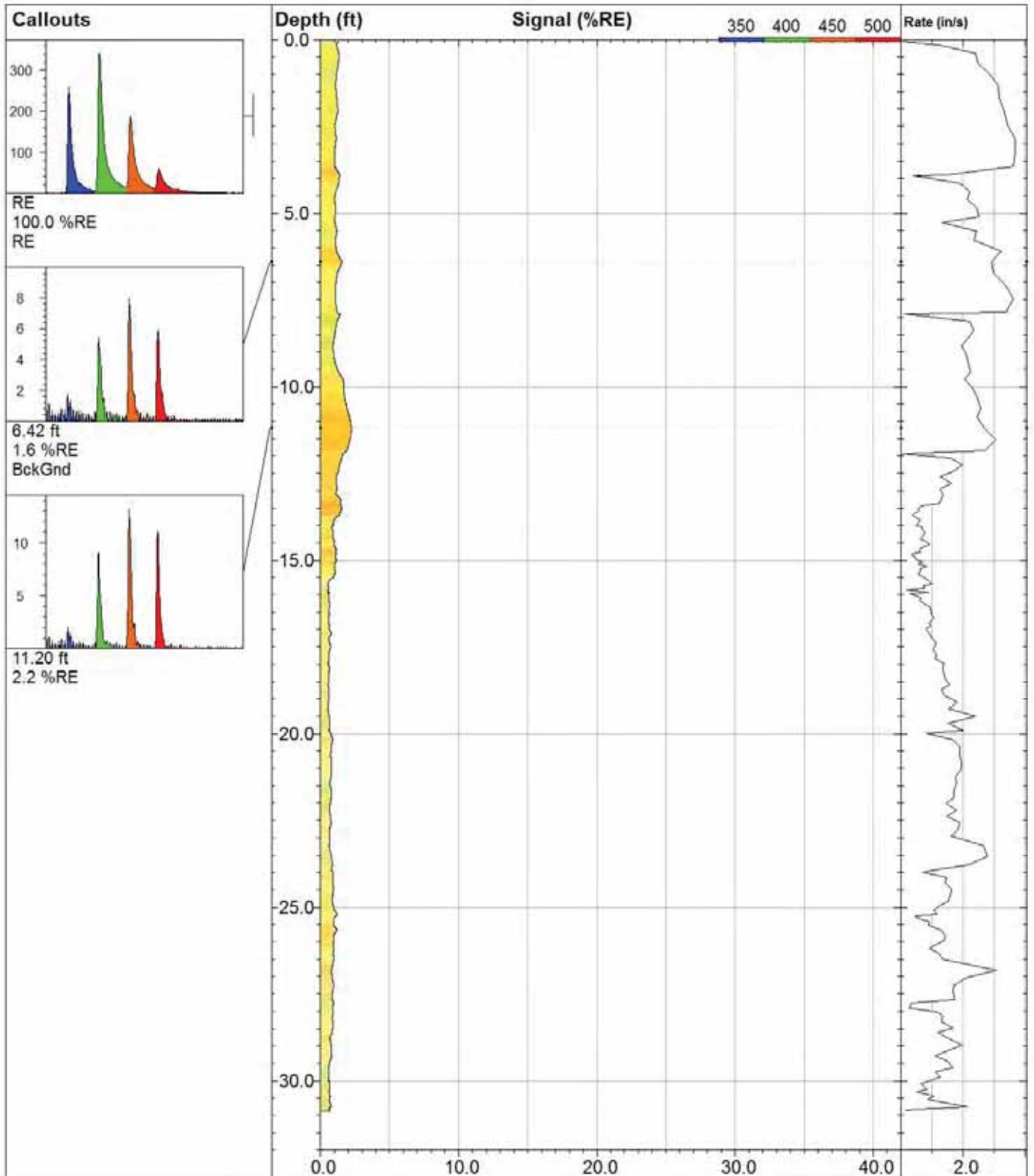
X Coord.(Lng-E) / Fix:
Unavailable / NA

Elevation:
Unavailable

Final depth:
25.56 ft

Max signal:
2.3 %RE @ 9.44 ft

Date & Time:
2015-03-30 11:12 EDT



uv-05

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
ZACH / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

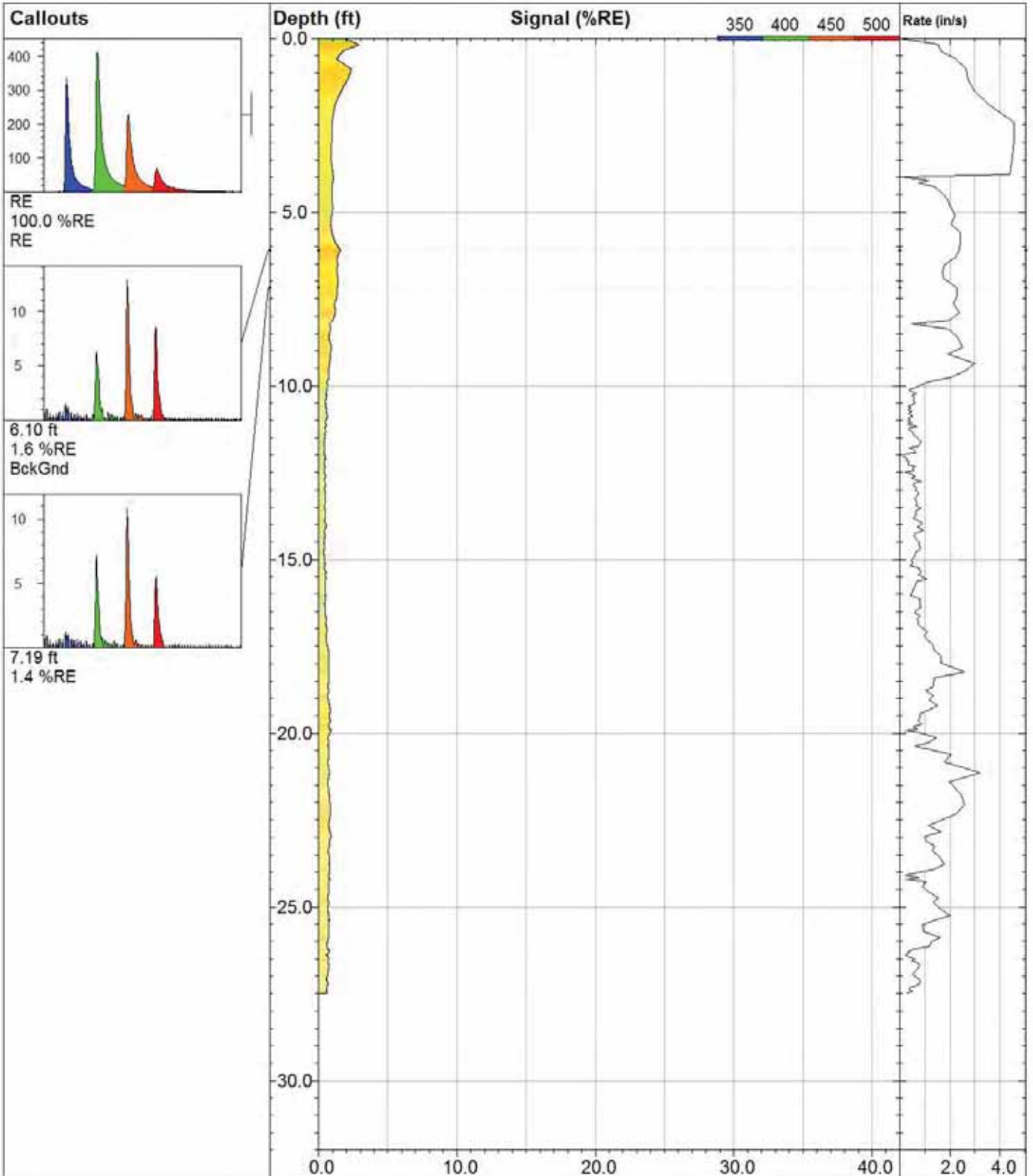
X Coord.(Lng-E) / Fix:
Unavailable / NA

Elevation:
Unavailable

Final depth:
30.88 ft

Max signal:
2.2 %RE @ 11.20 ft

Date & Time:
2015-03-30 11:28 EDT



uv-06

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
ZACH / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

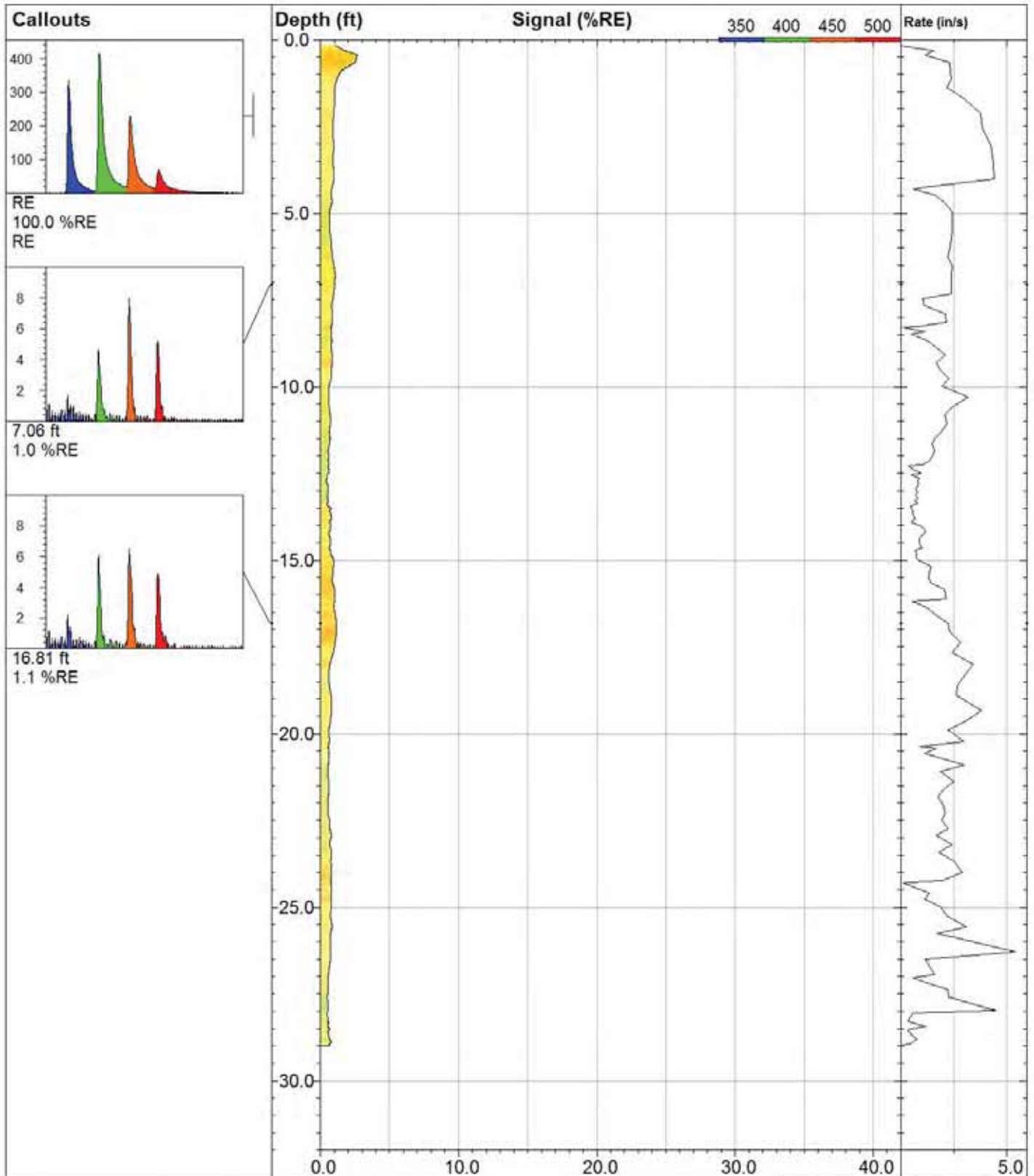
X Coord.(Lng-E) / Fix:
Unavailable / NA

Elevation:
Unavailable

Final depth:
27.49 ft

Max signal:
2.9 %RE @ 0.19 ft

Date & Time:
2015-03-30 11:49 EDT



uv-07

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
29.00 ft

Client / Job:
AECOM /

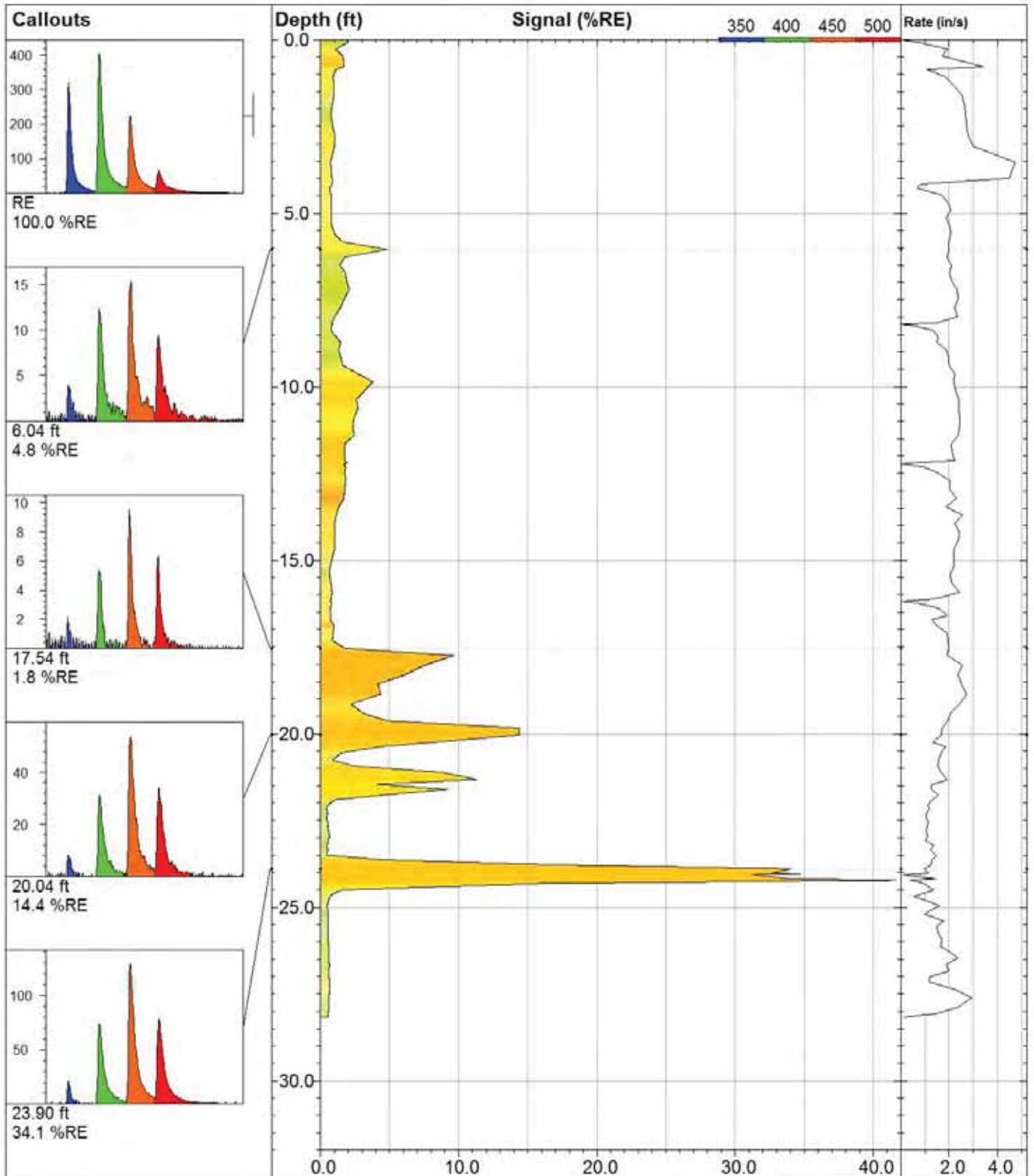
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
2.7 %RE @ 0.43 ft

Operator / Unit:
ZACH / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-30 12:07 EDT



uv-08

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville Ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
28.17 ft

Client / Job:
AECOM /

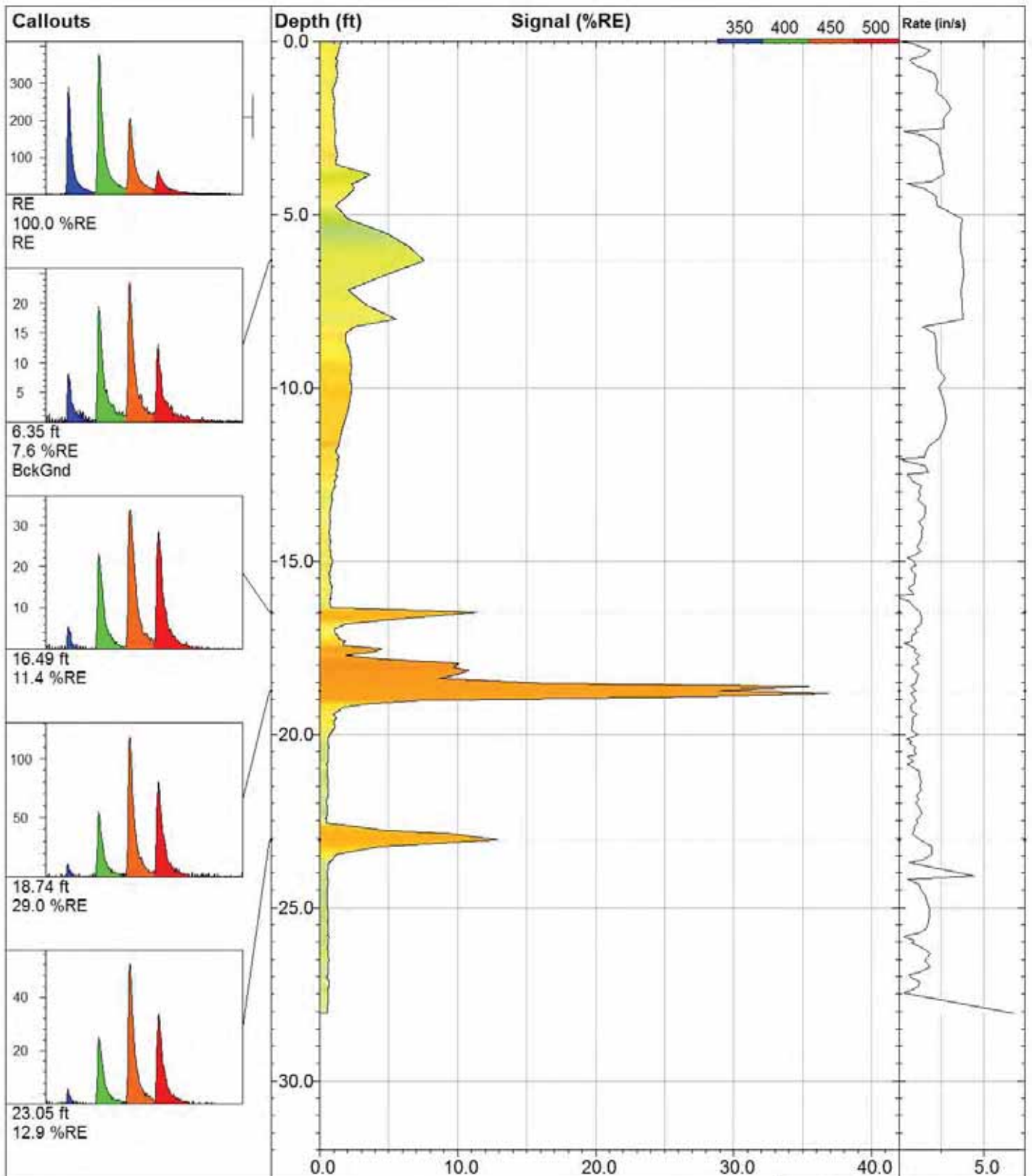
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
41.8 %RE @ 24.22 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-30 13:13 EDT



uv-09

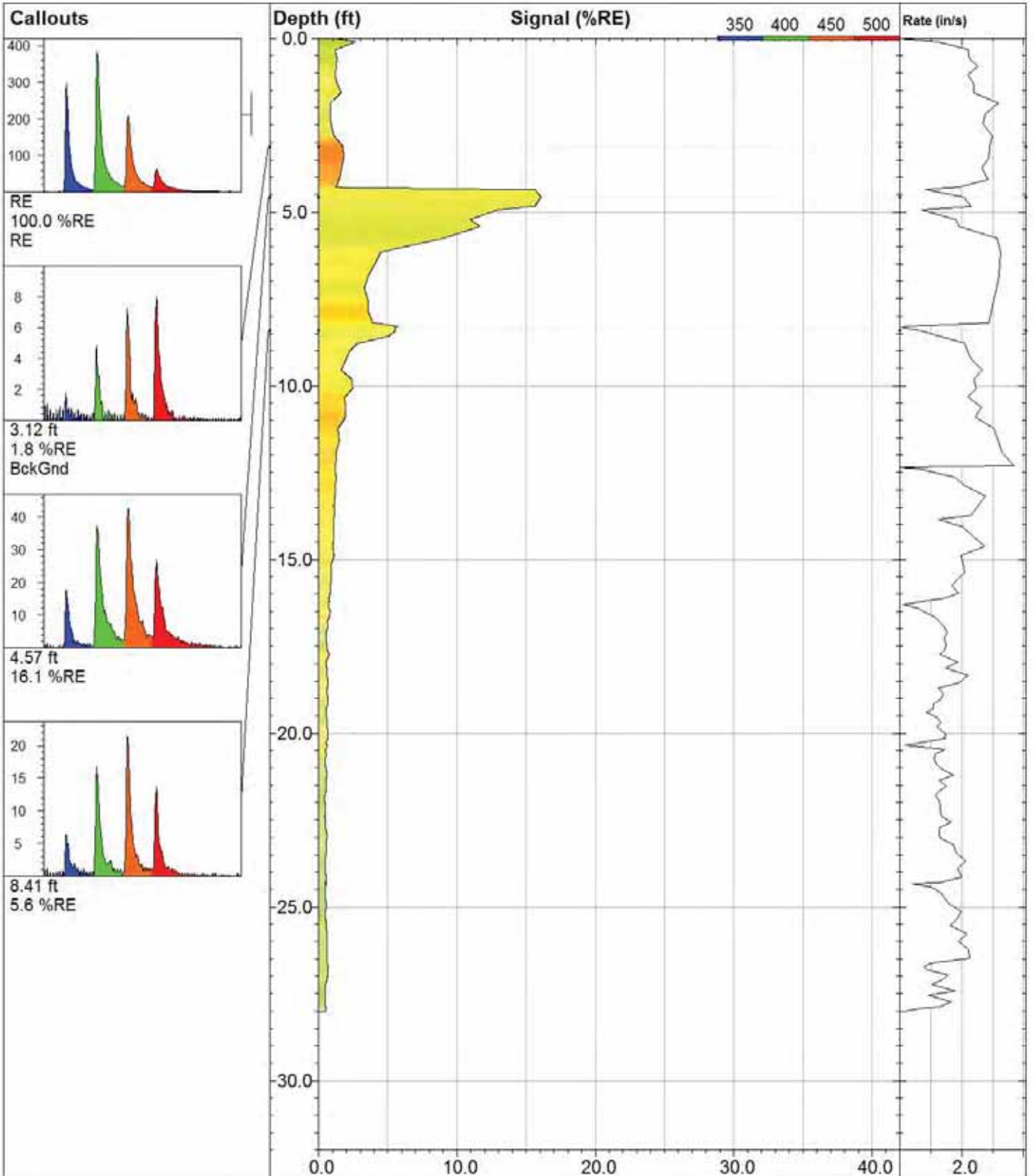
Site:
744 Belleville Ave
Client / Job:
AECOM /
Operator / Unit:
Zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA
X Coord.(Lng-E) / Fix:
Unavailable / NA
Elevation:
Unavailable

UVOST By Dakota

www.DakotaTechnologies.com

Final depth:
28.05 ft
Max signal:
36.9 %RE @ 18.83 ft
Date & Time:
2015-03-30 13:33 EDT



uv-10

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville Ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
28.02 ft

Client / Job:
AECOM /

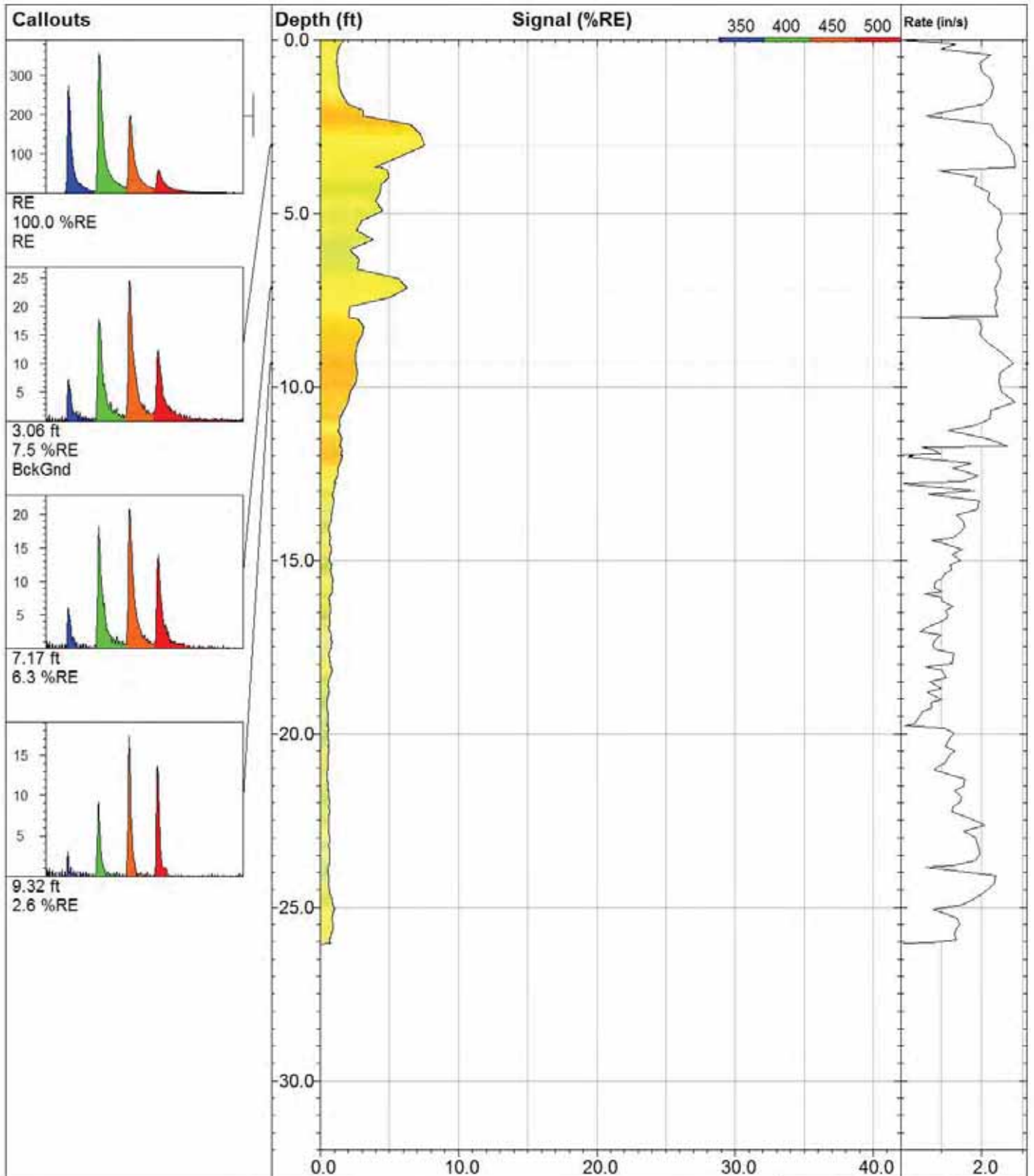
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
16.1 %RE @ 4.57 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-30 13:55 EDT



uv-11

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville Ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
26.06 ft

Client / Job:
AECOM /

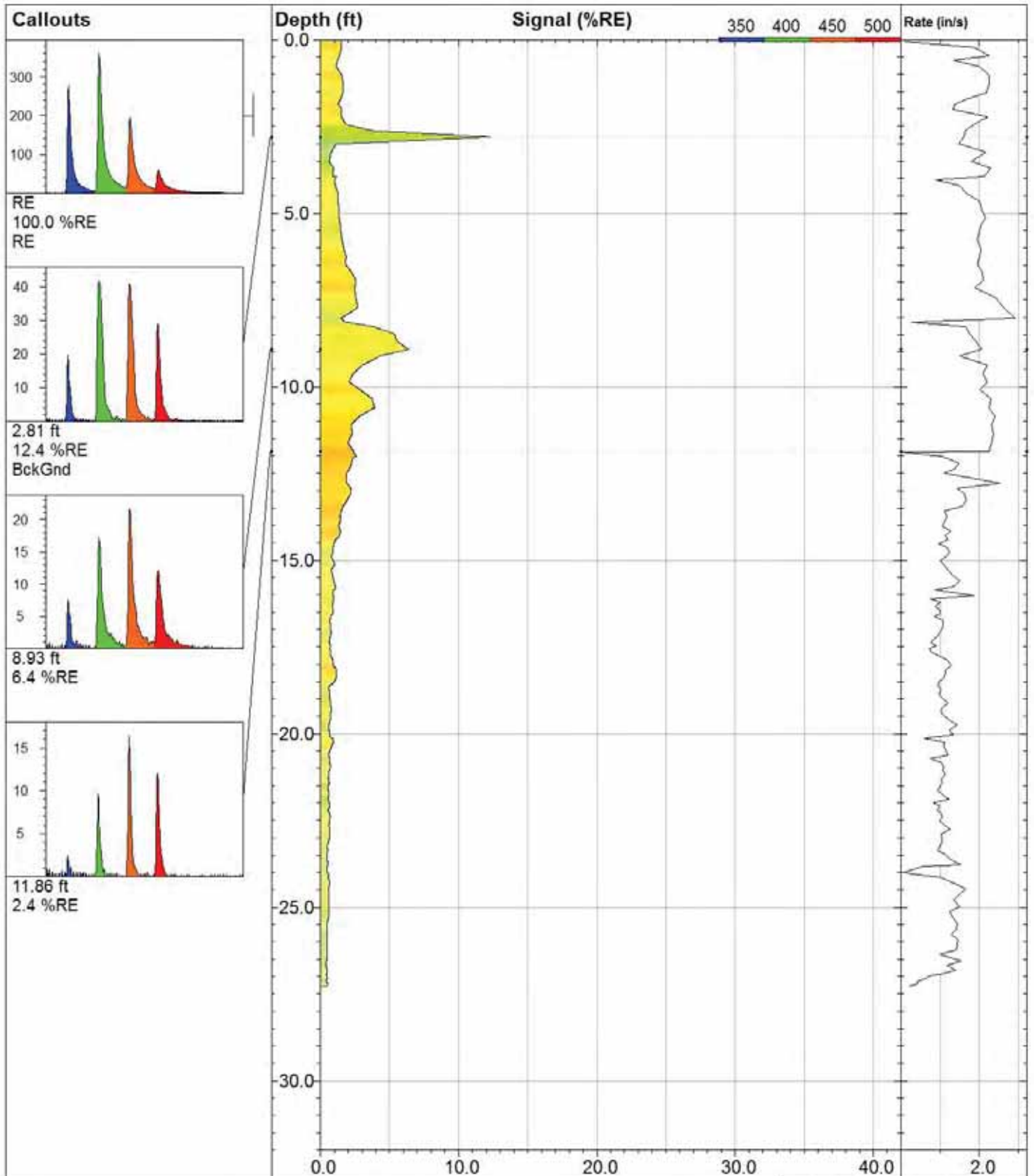
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
7.5 %RE @ 3.06 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-30 14:12 EDT



uv-12

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville Ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
27.28 ft

Client / Job:
AECOM /

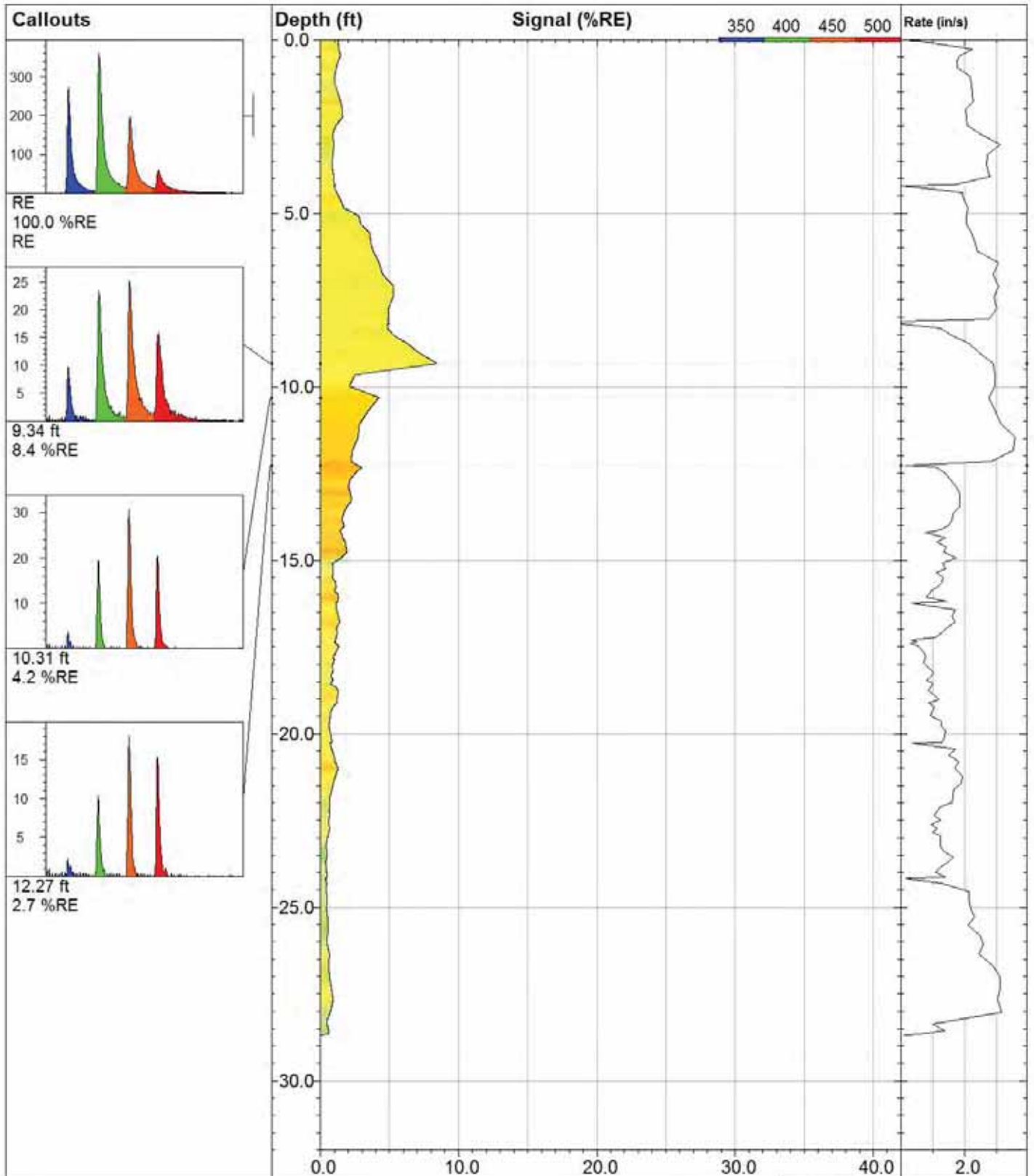
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
12.4 %RE @ 2.81 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-30 14:34 EDT



uv-13

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville Ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
28.67 ft

Client / Job:
AECOM /

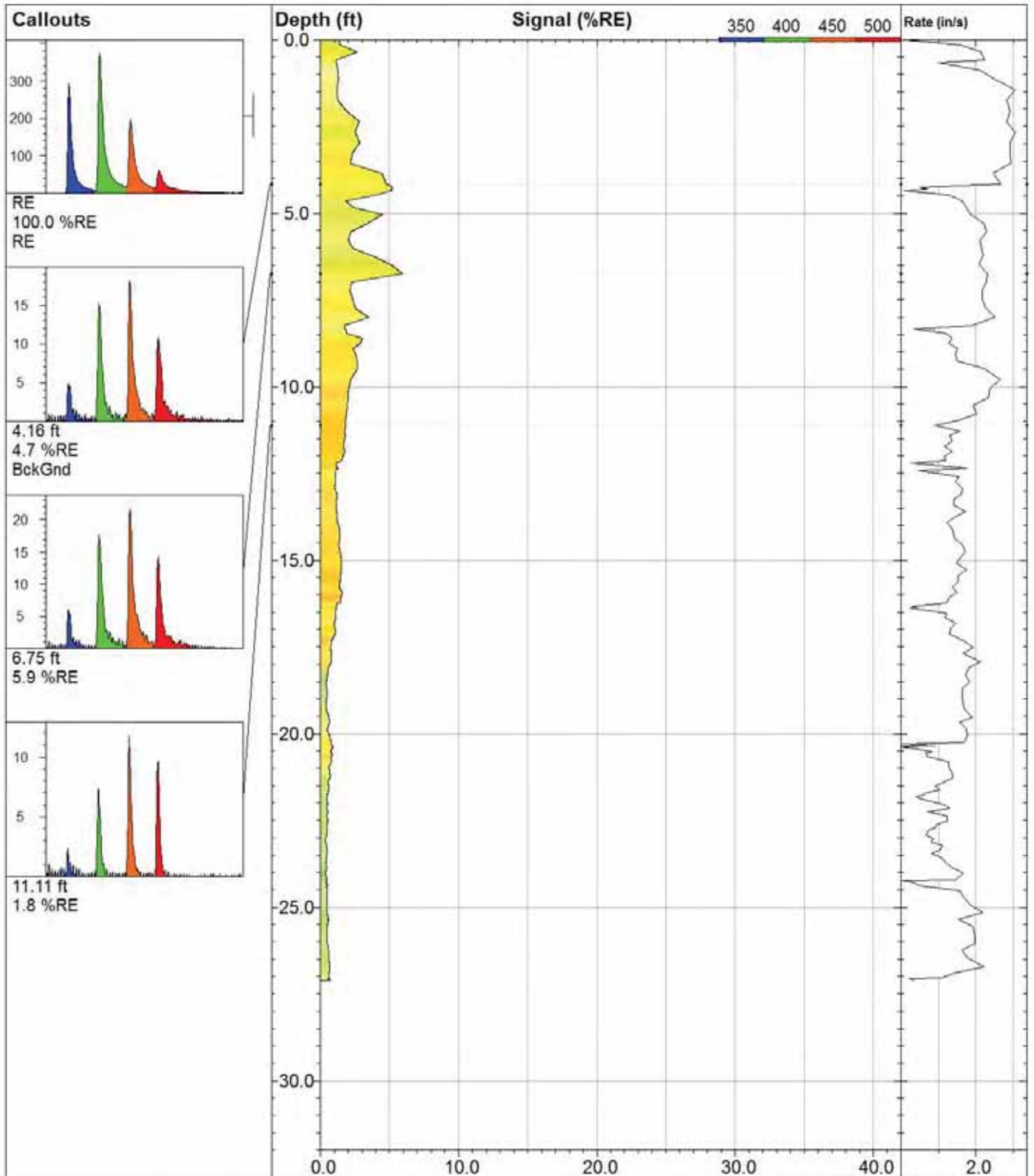
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
8.4 %RE @ 9.34 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-30 14:51 EDT



uv-14

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
27.10 ft

Client / Job:
AECOM /

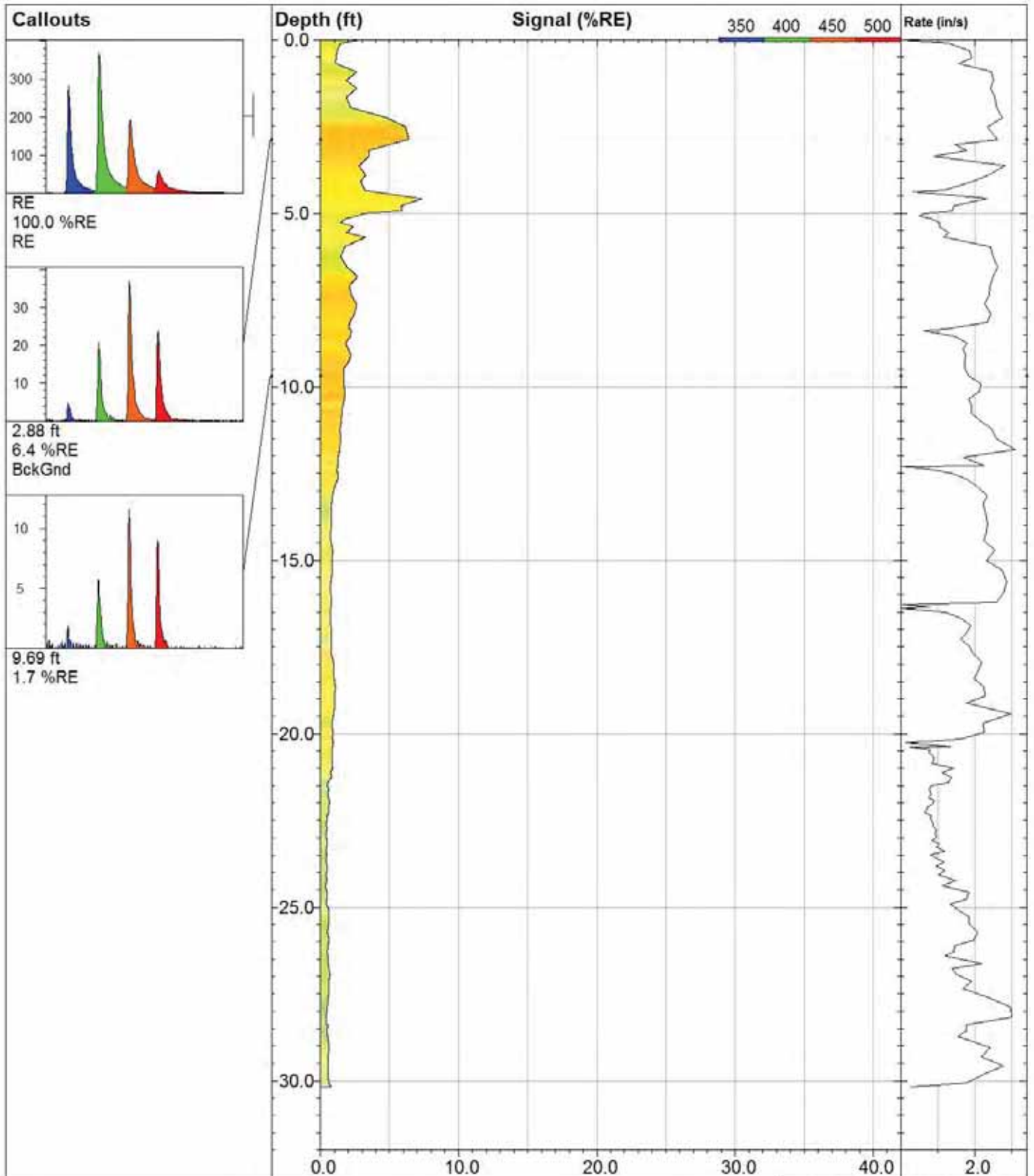
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
5.9 %RE @ 6.75 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 07:18 EDT



uv-15

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
30.19 ft

Client / Job:
AECOM /

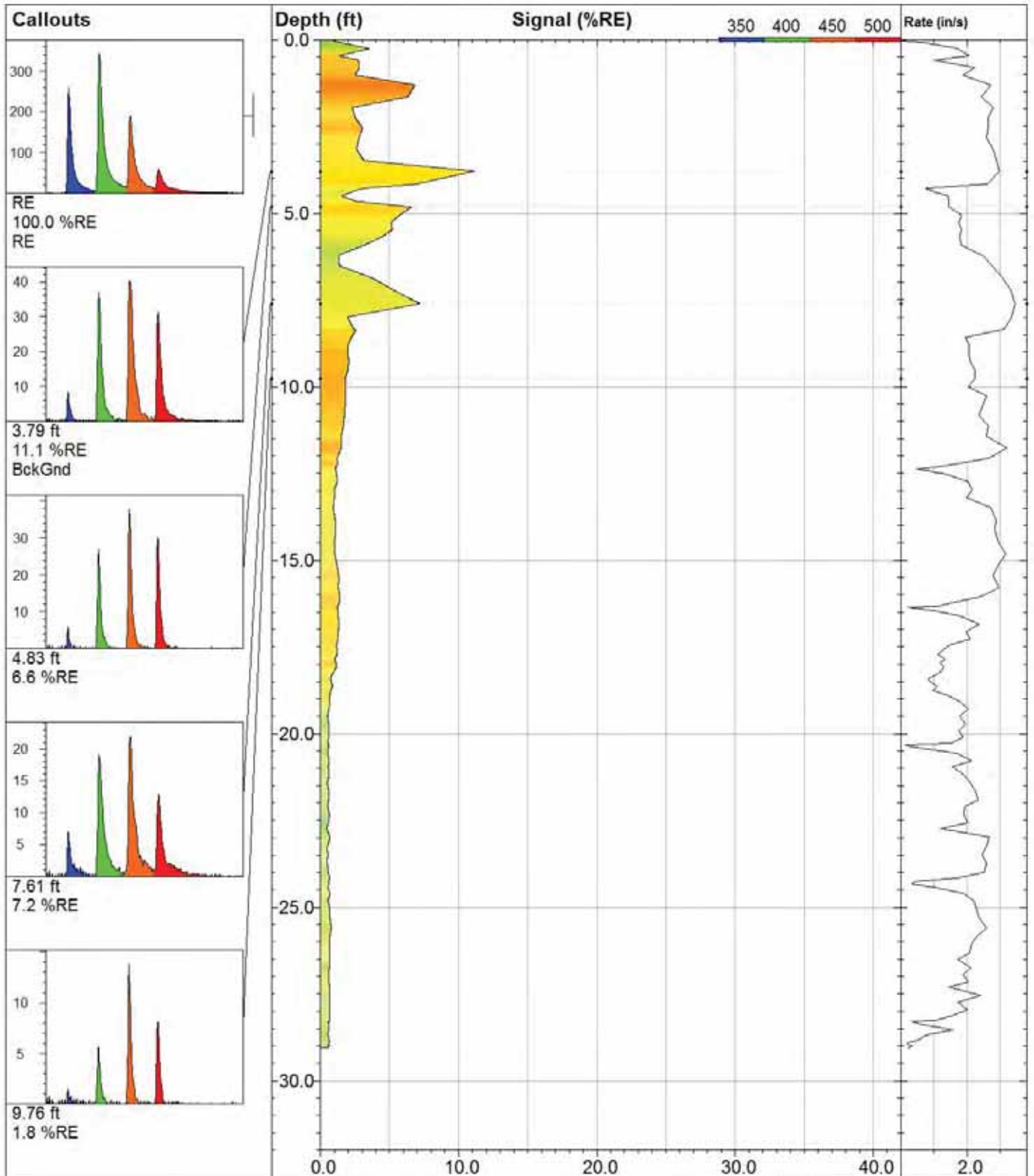
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
7.3 %RE @ 4.58 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 07:46 EDT



uv-16

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
Zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

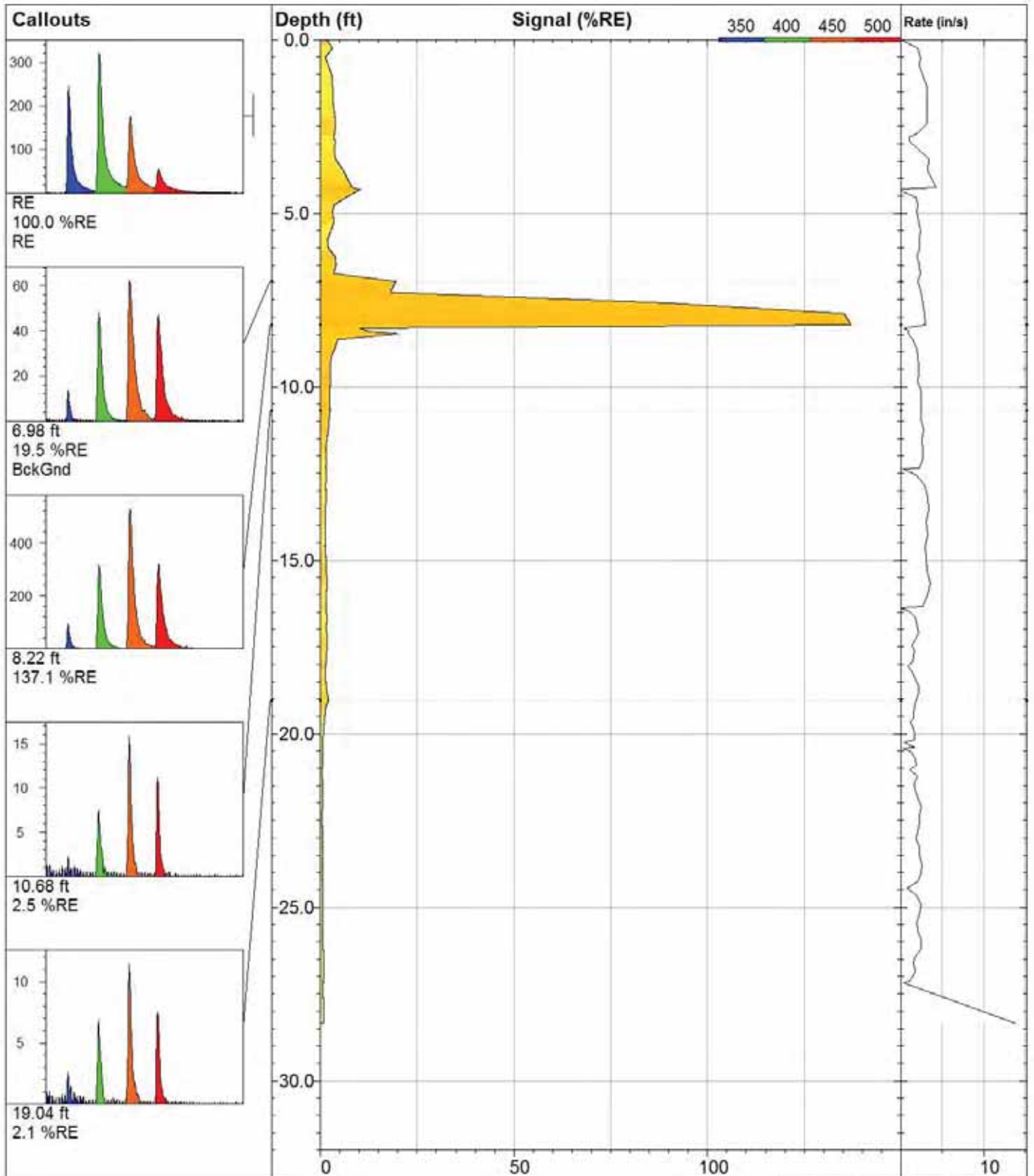
X Coord.(Lng-E) / Fix:
Unavailable / NA

Elevation:
Unavailable

Final depth:
29.05 ft

Max signal:
11.1 %RE @ 3.79 ft

Date & Time:
2015-03-31 08:06 EDT



uv-17

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
Zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

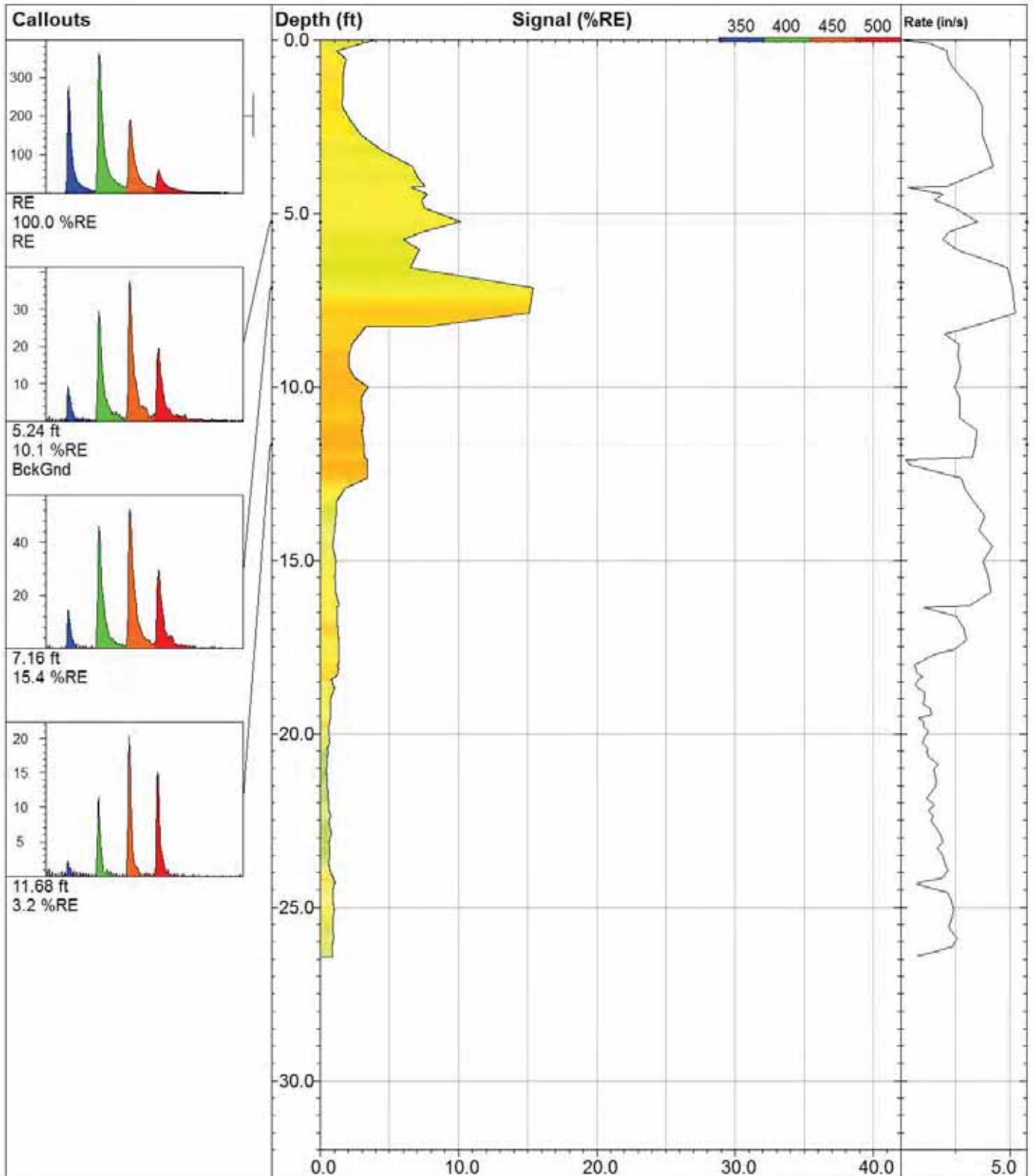
X Coord.(Lng-E) / Fix:
Unavailable / NA

Elevation:
Unavailable

Final depth:
28.35 ft

Max signal:
137.1 %RE @ 8.22 ft

Date & Time:
2015-03-31 08:25 EDT



uv-18

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
26.44 ft

Client / Job:
AECOM /

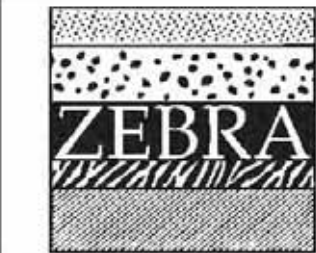
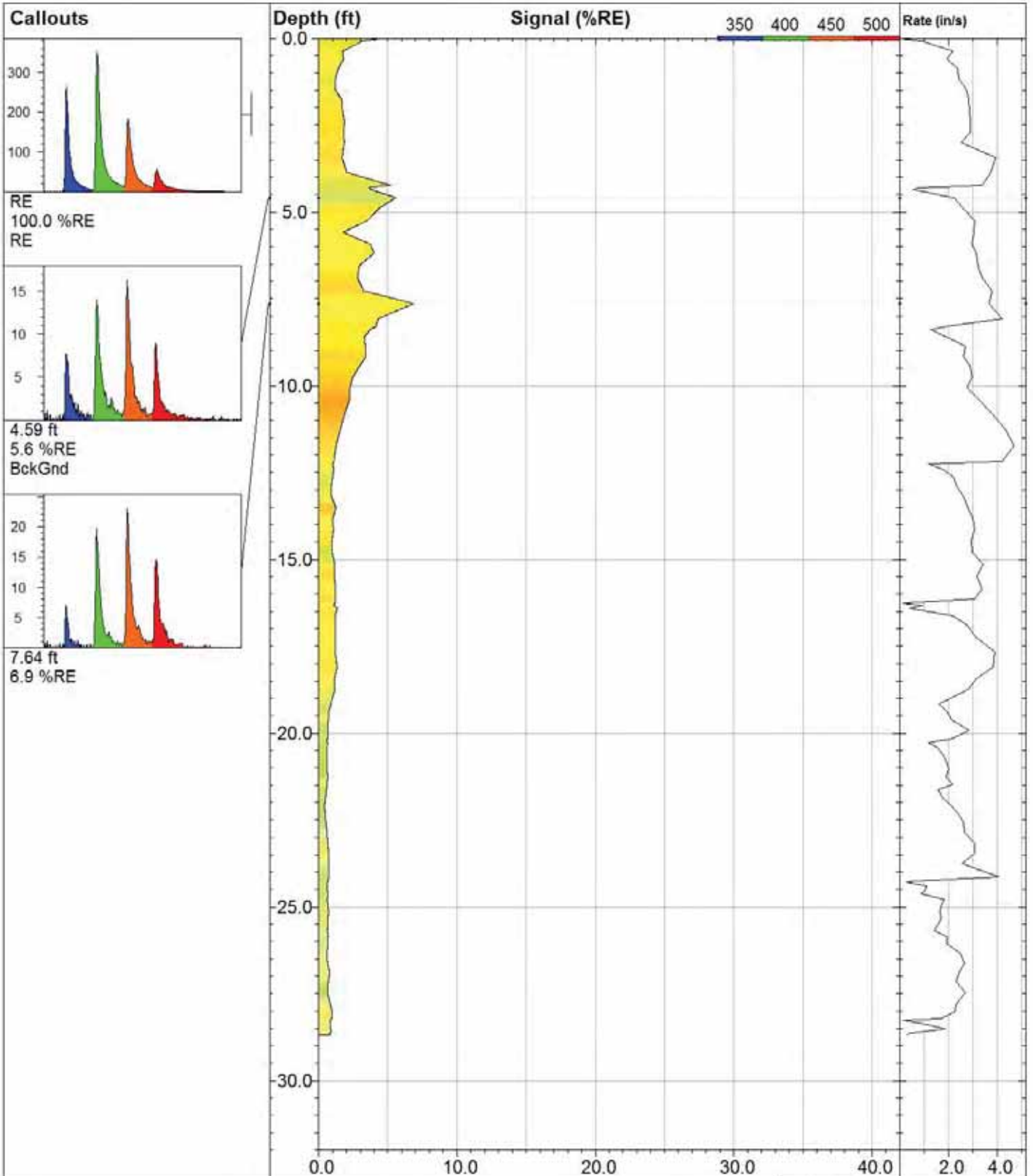
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
15.4 %RE @ 7.16 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 08:43 EDT



uv-19

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
28.69 ft

Client / Job:
AECOM /

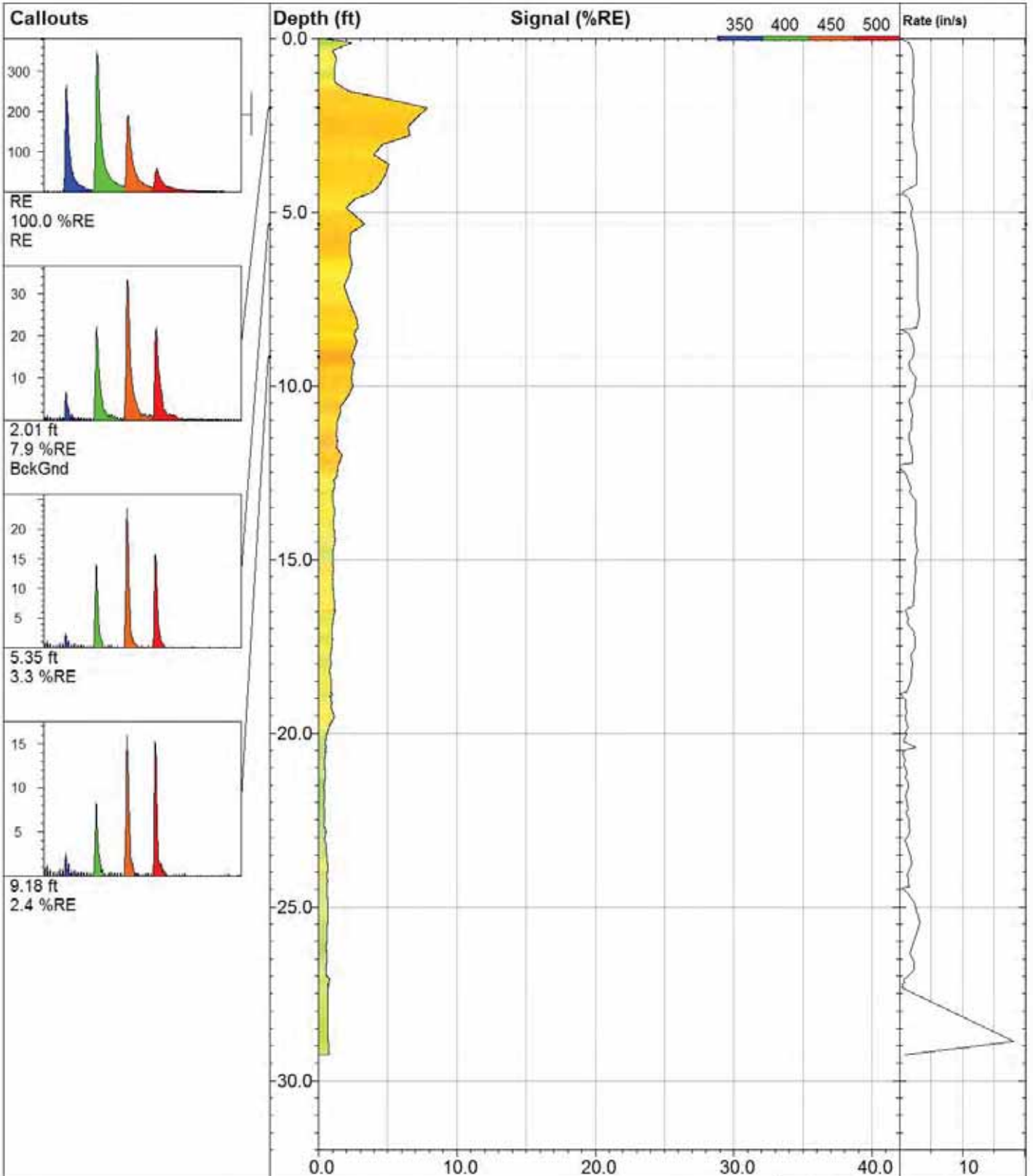
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
6.9 %RE @ 7.64 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 08:57 EDT



uv-20

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
Zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

X Coord.(Lng-E) / Fix:
Unavailable / NA

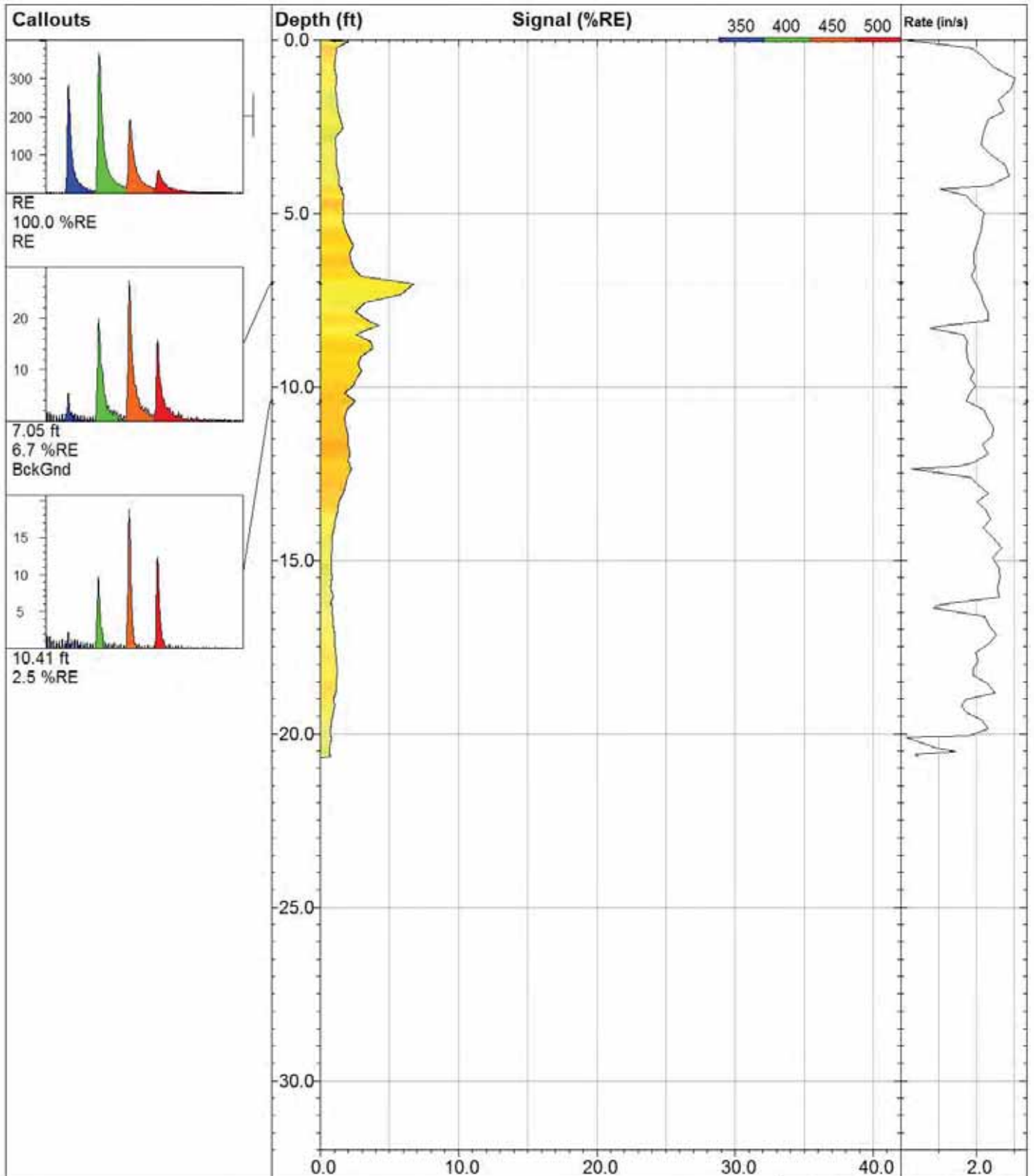
Elevation:
Unavailable

UVOST By Dakota
www.DakotaTechnologies.com

Final depth:
29.26 ft

Max signal:
7.9 %RE @ 2.01 ft

Date & Time:
2015-03-31 09:12 EDT



uv-21

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
20.68 ft

Client / Job:
AECOM /

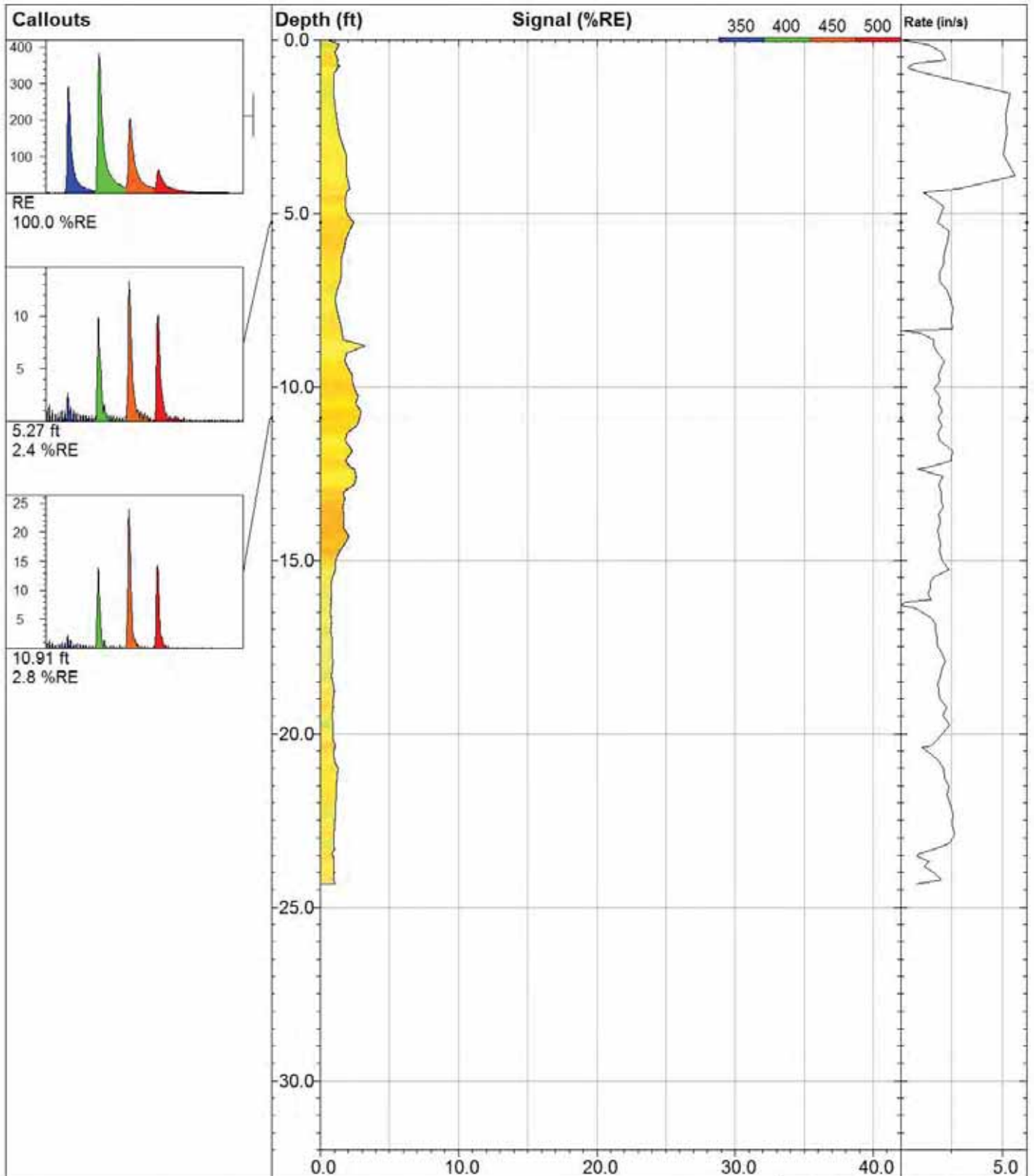
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
6.7 %RE @ 7.05 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 09:28 EDT



uv-22a

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
24.33 ft

Client / Job:
AECOM /

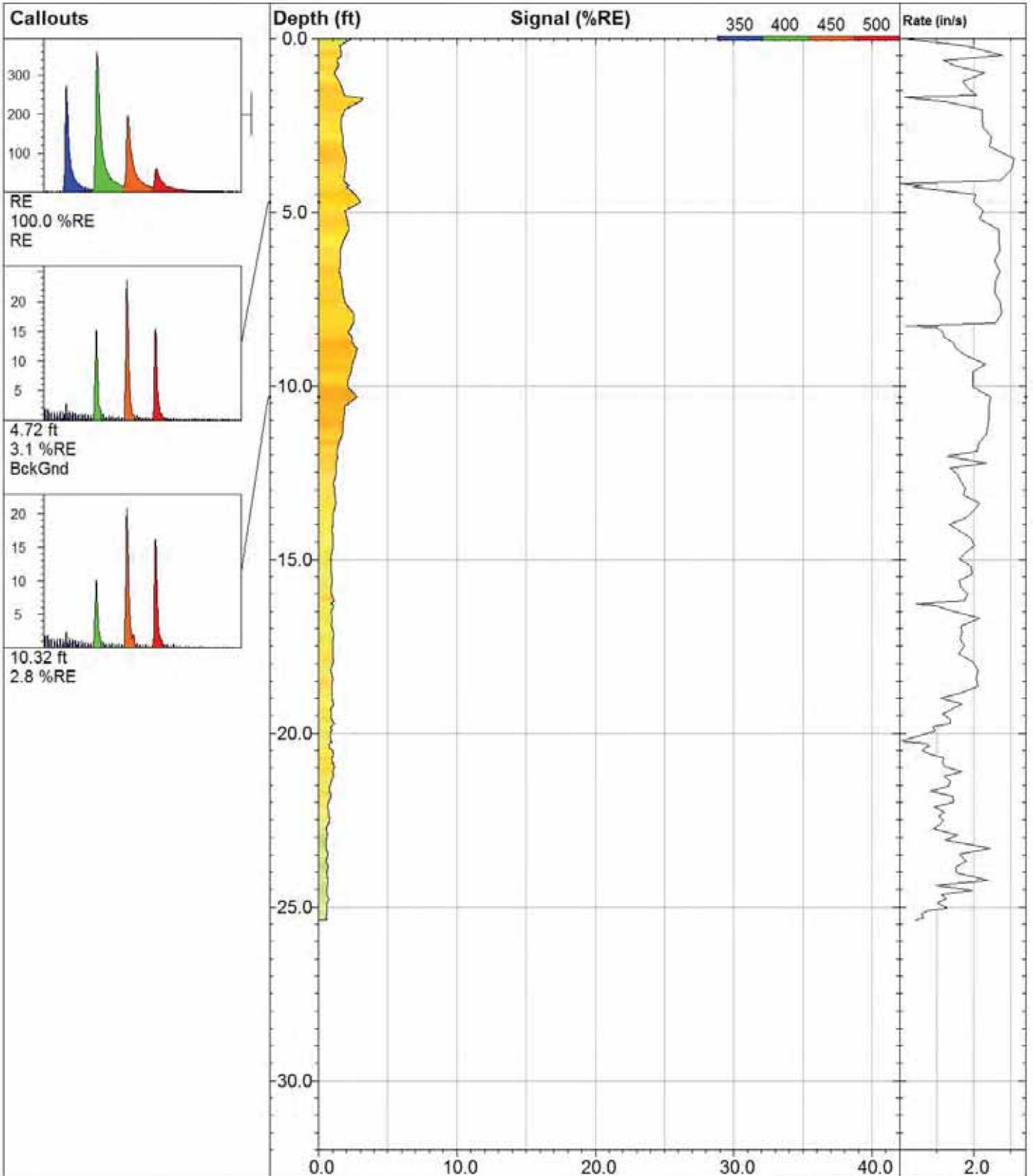
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
3.2 %RE @ 8.82 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 09:58 EDT



uv-23

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
25.37 ft

Client / Job:
AECOM /

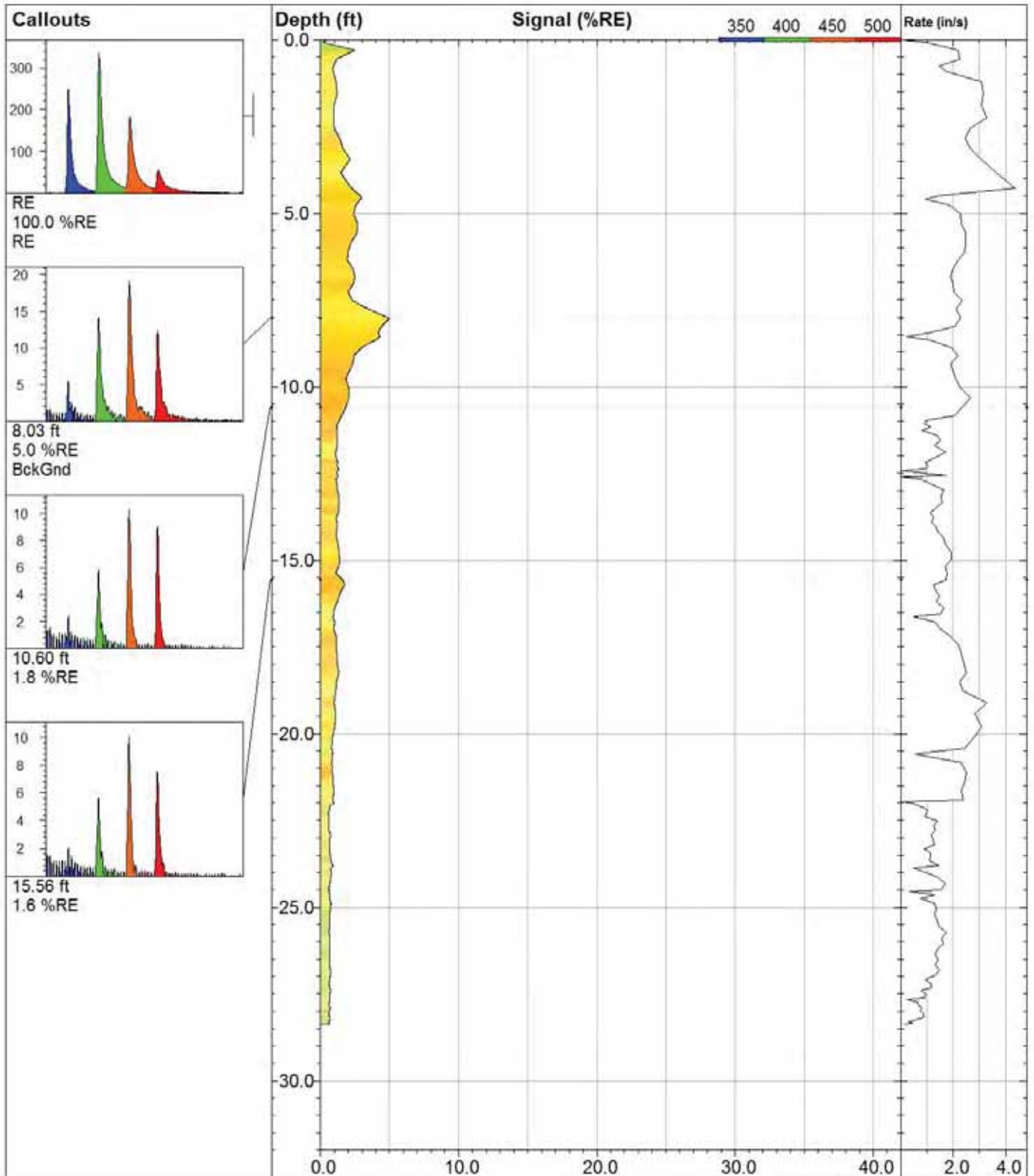
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
3.2 %RE @ 1.73 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 10:13 EDT



uv-24

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
28.37 ft

Client / Job:
AECOM /

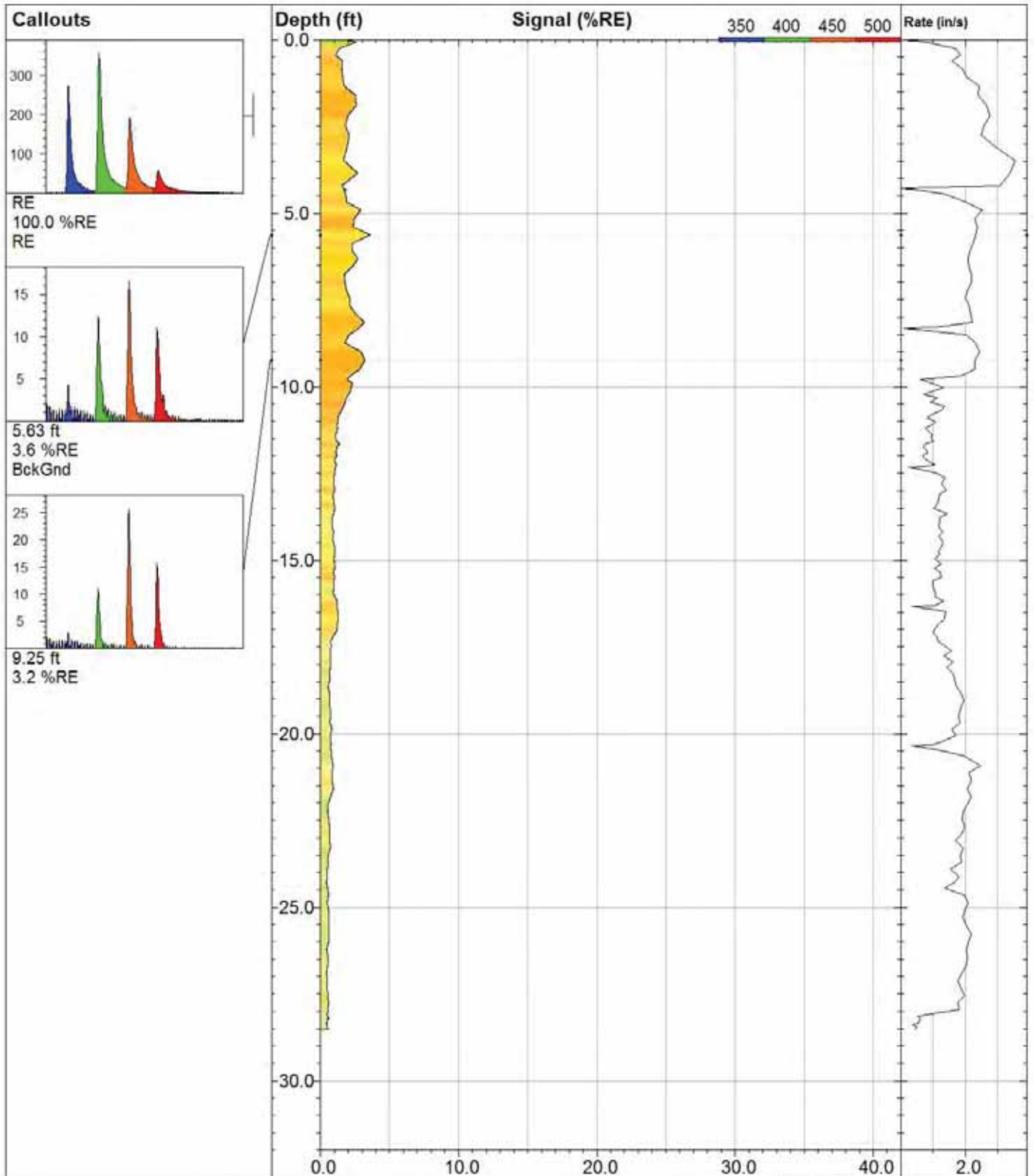
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
5.0 %RE @ 8.03 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 10:30 EDT



uv-25

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
28.52 ft

Client / Job:
AECOM /

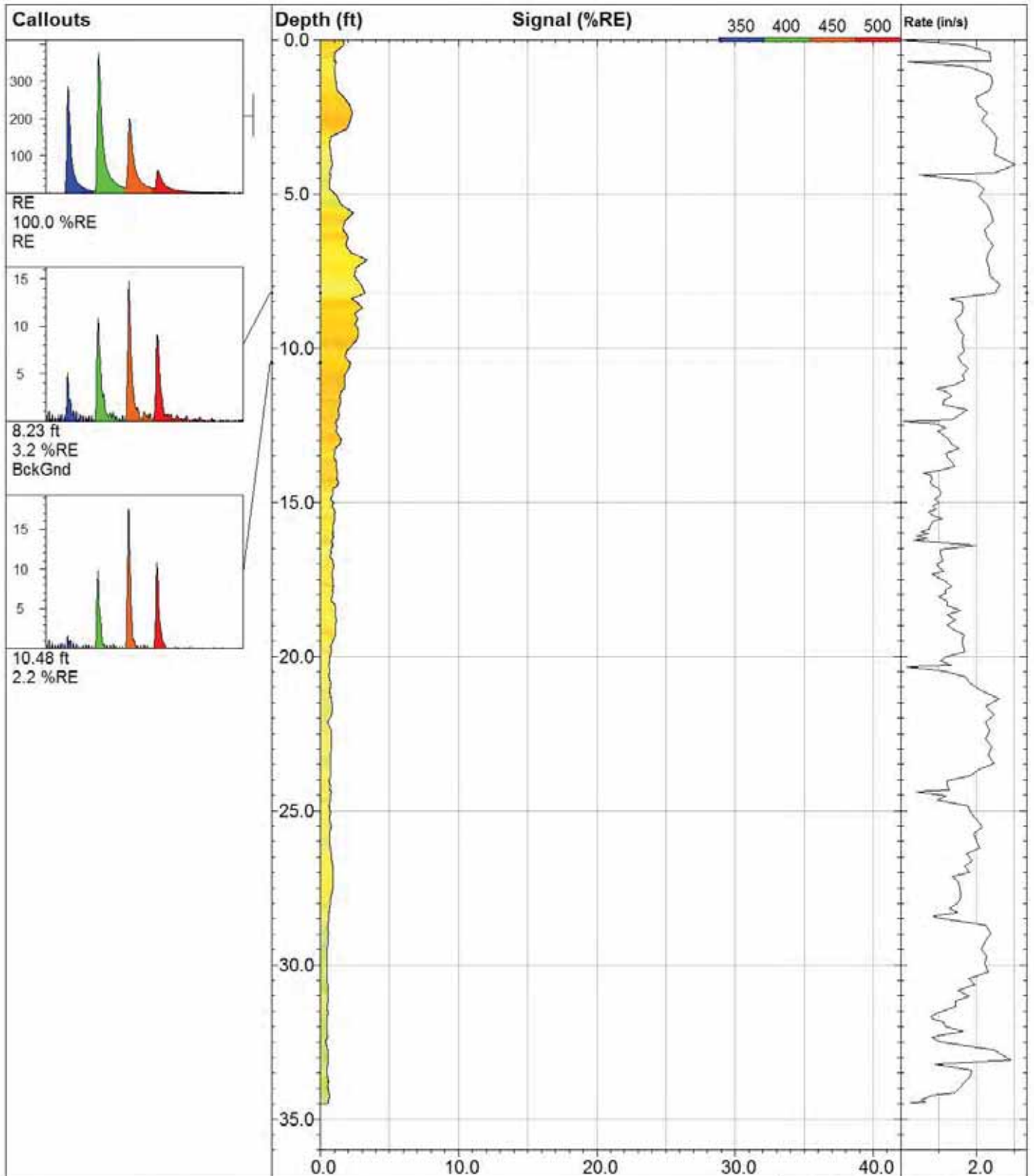
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
3.6 %RE @ 5.63 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 10:48 EDT



uv-26

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
34.49 ft

Client / Job:
AECOM /

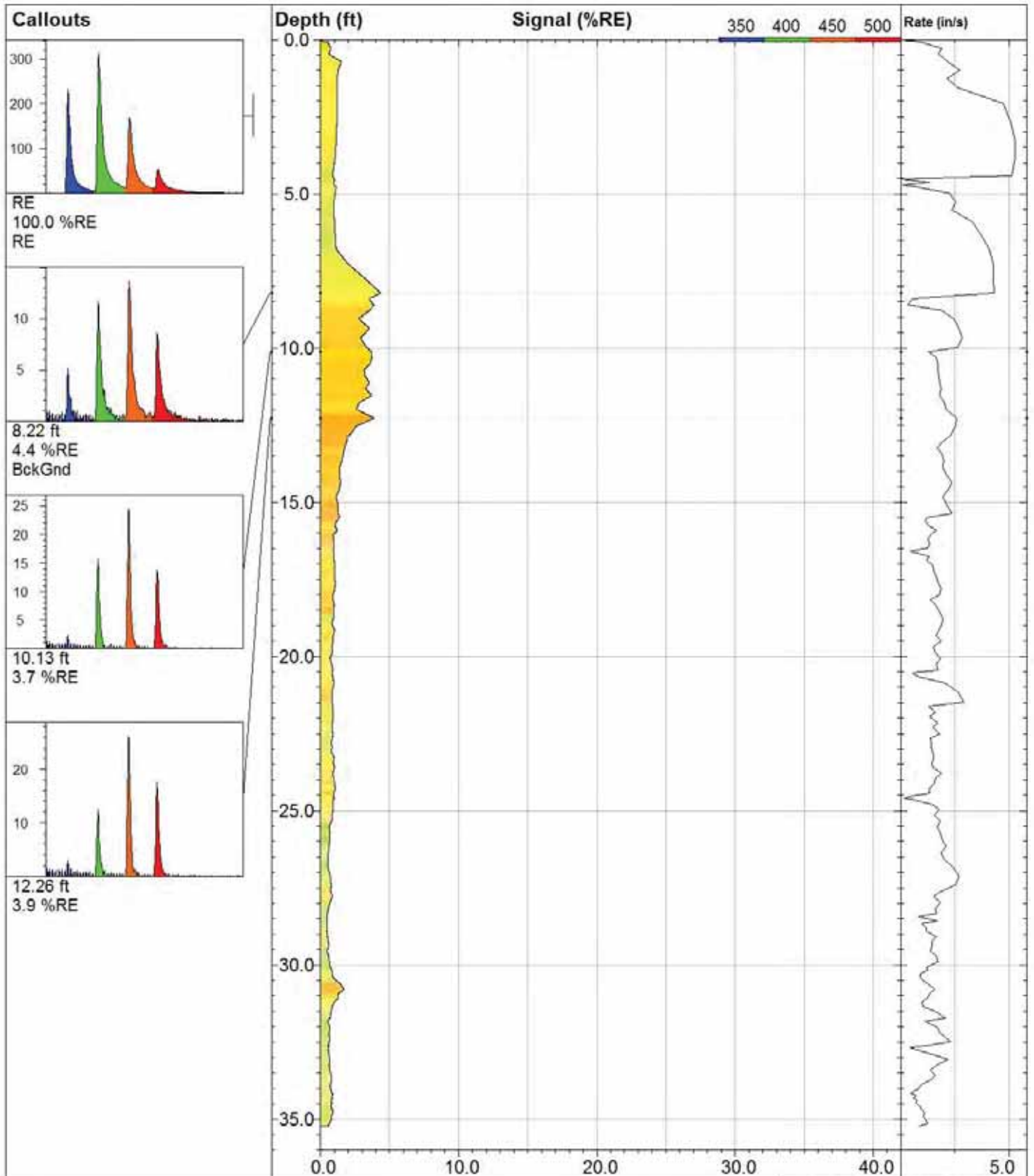
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
3.4 %RE @ 7.15 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 11:06 EDT



uv-27c

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
35.24 ft

Client / Job:
AECOM /

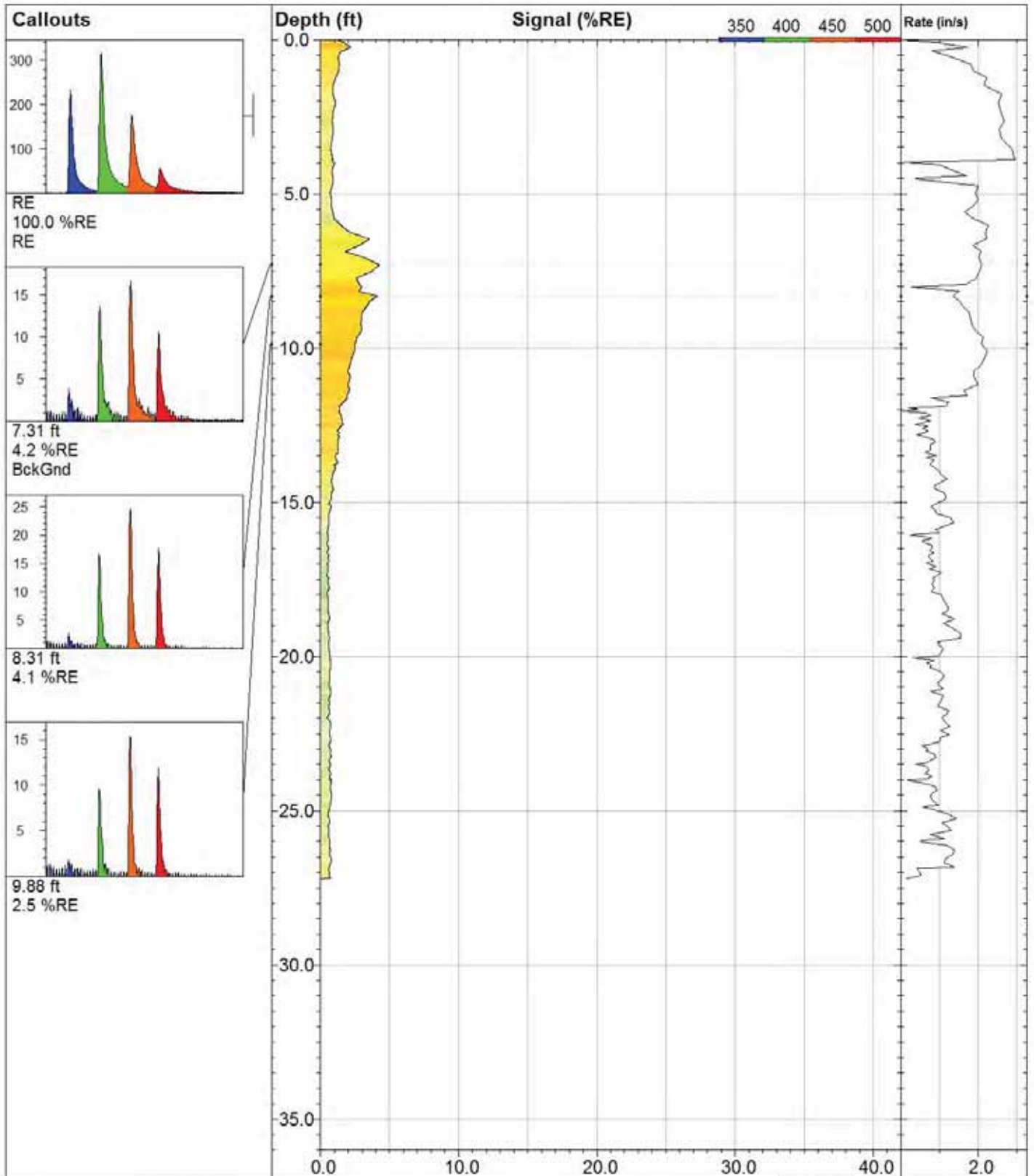
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
4.4 %RE @ 8.22 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-03-31 12:06 EDT



uv-28

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
Zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

X Coord.(Lng-E) / Fix:
Unavailable / NA

Elevation:
Unavailable

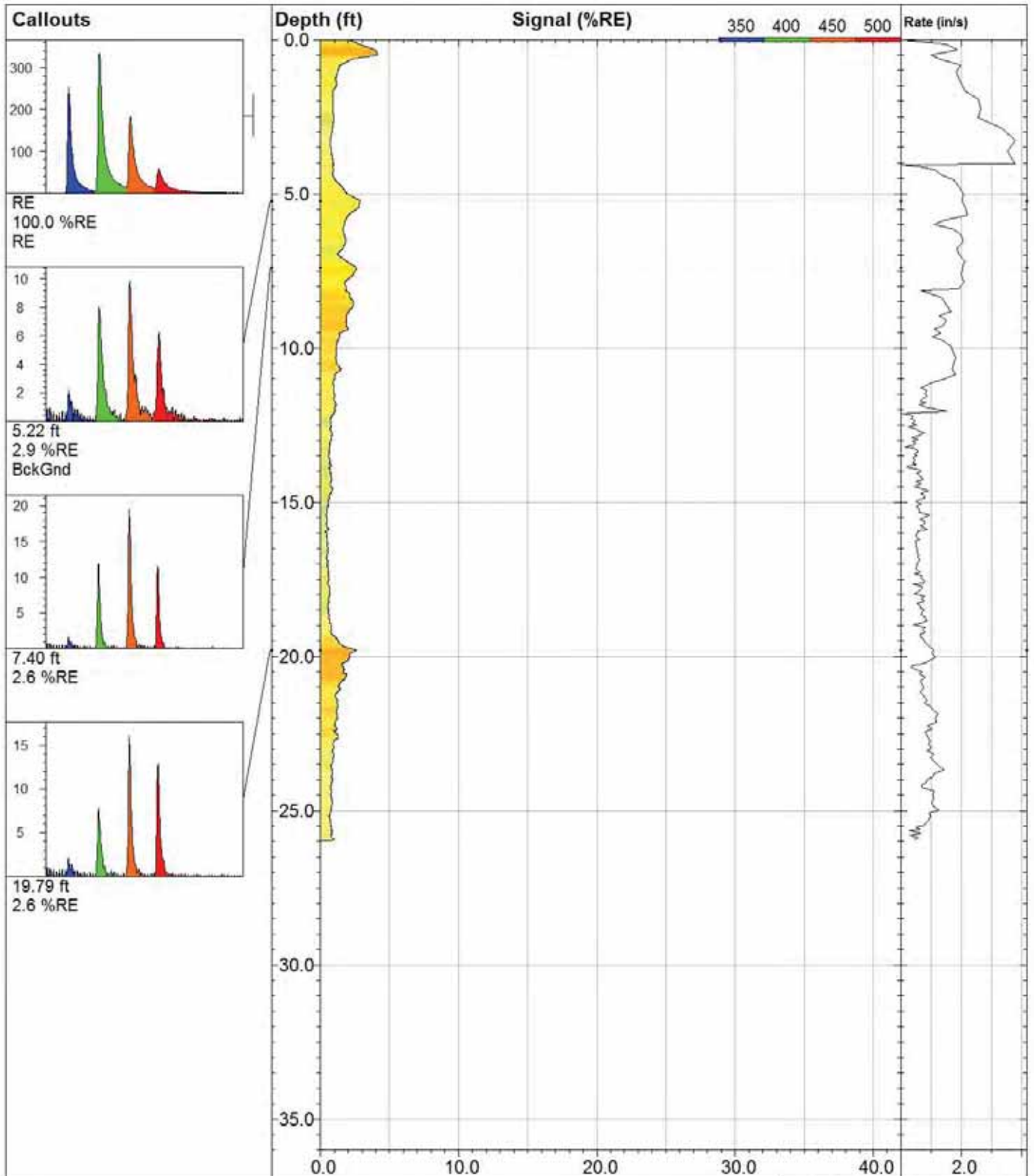
UVOST By Dakota

www.DakotaTechnologies.com

Final depth:
27.20 ft

Max signal:
4.2 %RE @ 7.31 ft

Date & Time:
2015-04-01 07:14 EDT



uv-29

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
25.95 ft

Client / Job:
AECOM /

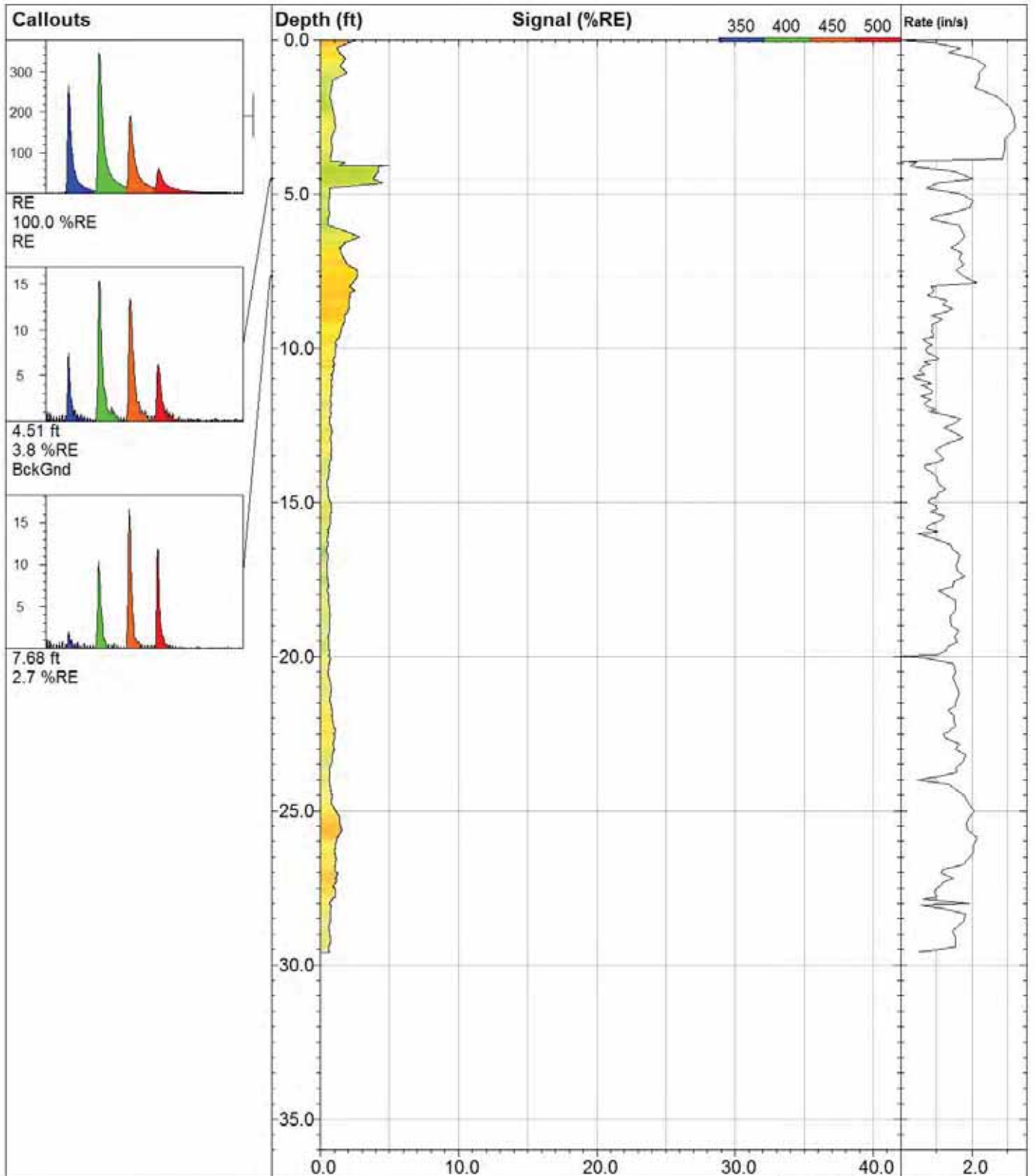
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
4.1 %RE @ 0.50 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-01 07:41 EDT



uv-30

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
29.61 ft

Client / Job:
AECOM /

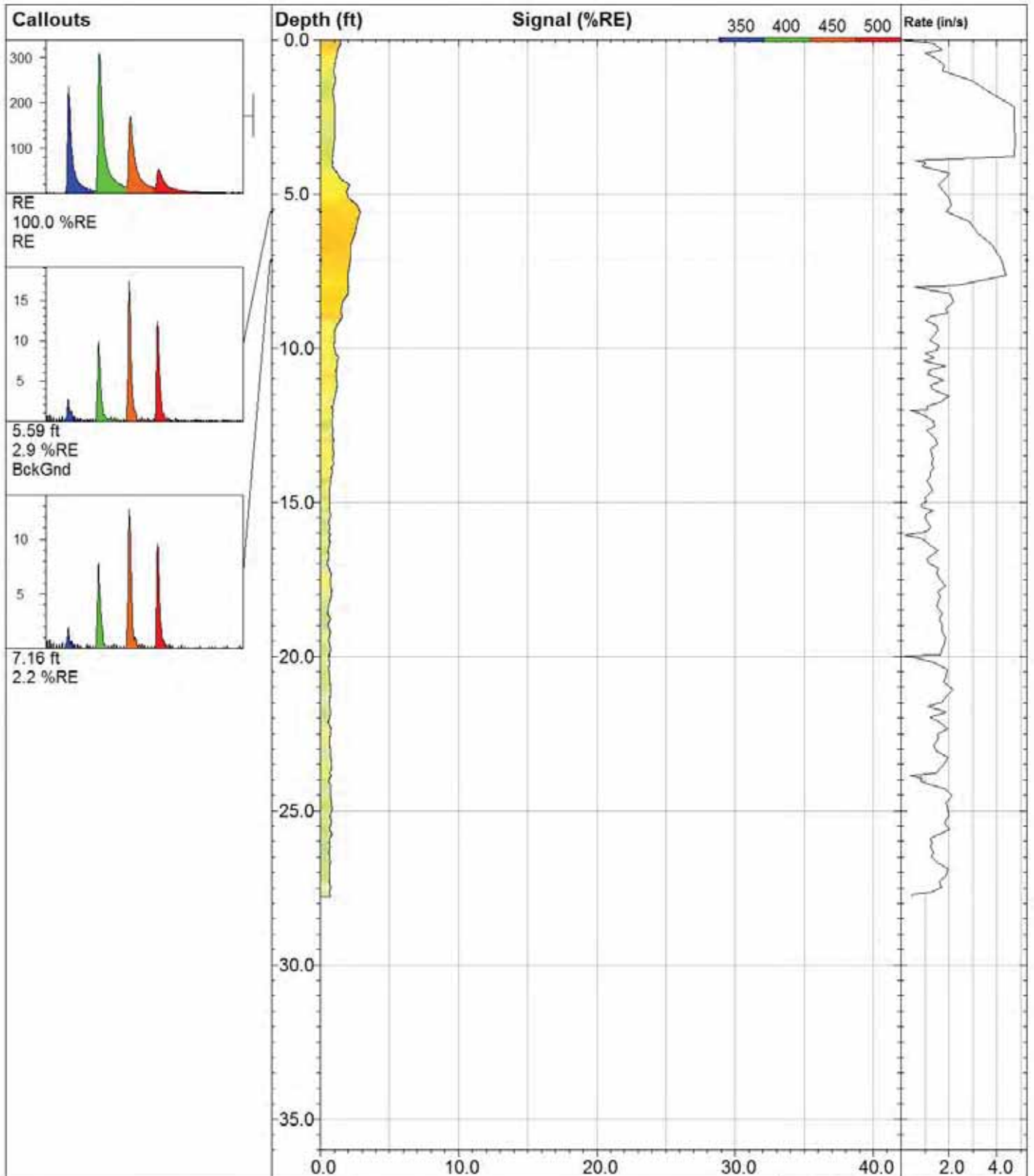
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
4.9 %RE @ 4.09 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-01 07:58 EDT



uv-31

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
27.78 ft

Client / Job:
AECOM /

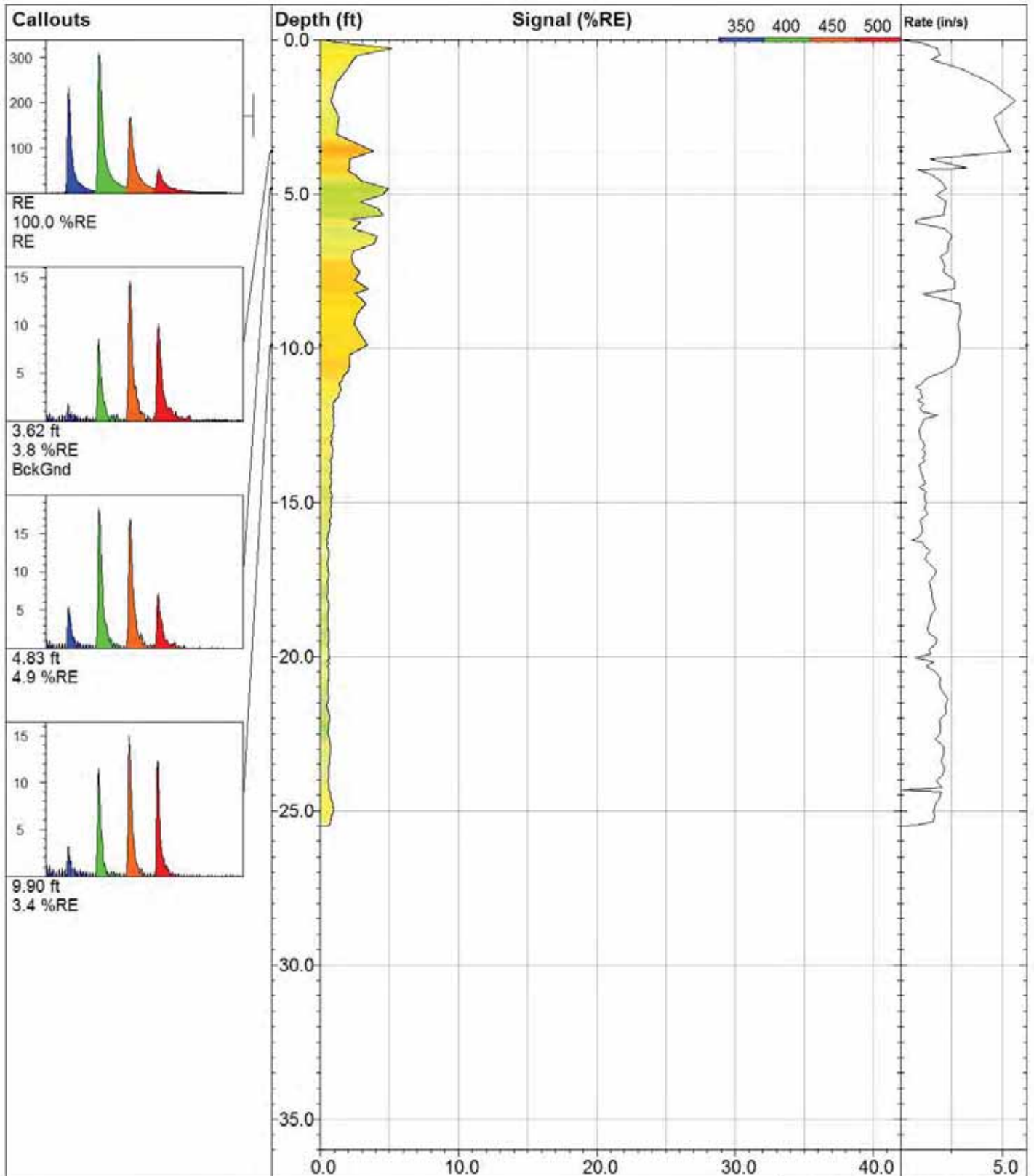
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
2.9 %RE @ 5.59 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-01 09:04 EDT



uv-32

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
Zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

X Coord.(Lng-E) / Fix:
Unavailable / NA

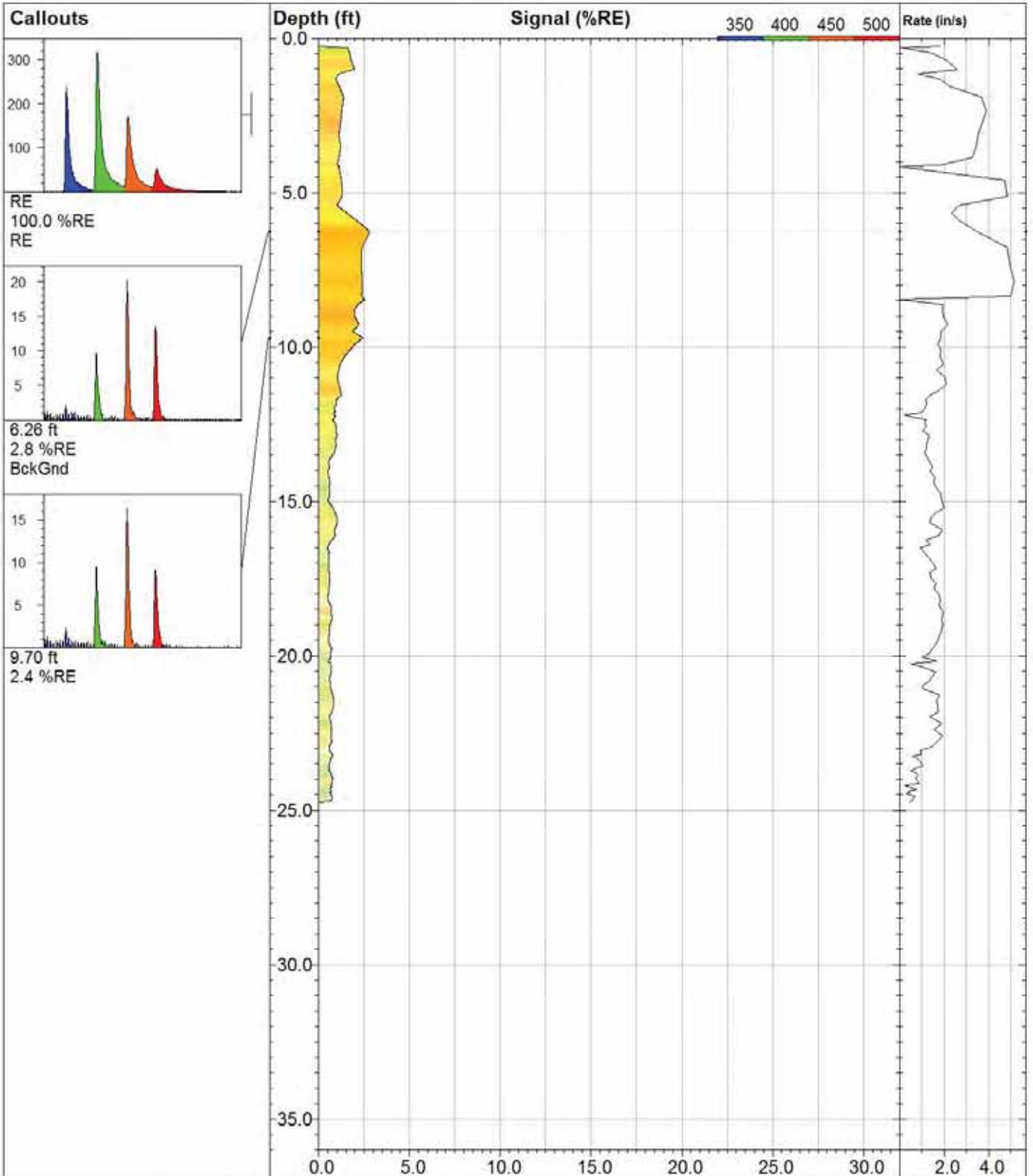
Elevation:
Unavailable

UVOST By Dakota
www.DakotaTechnologies.com

Final depth:
25.50 ft

Max signal:
5.2 %RE @ 0.28 ft

Date & Time:
2015-04-01 09:19 EDT



uv-33

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
24.73 ft

Client / Job:
AECOM /

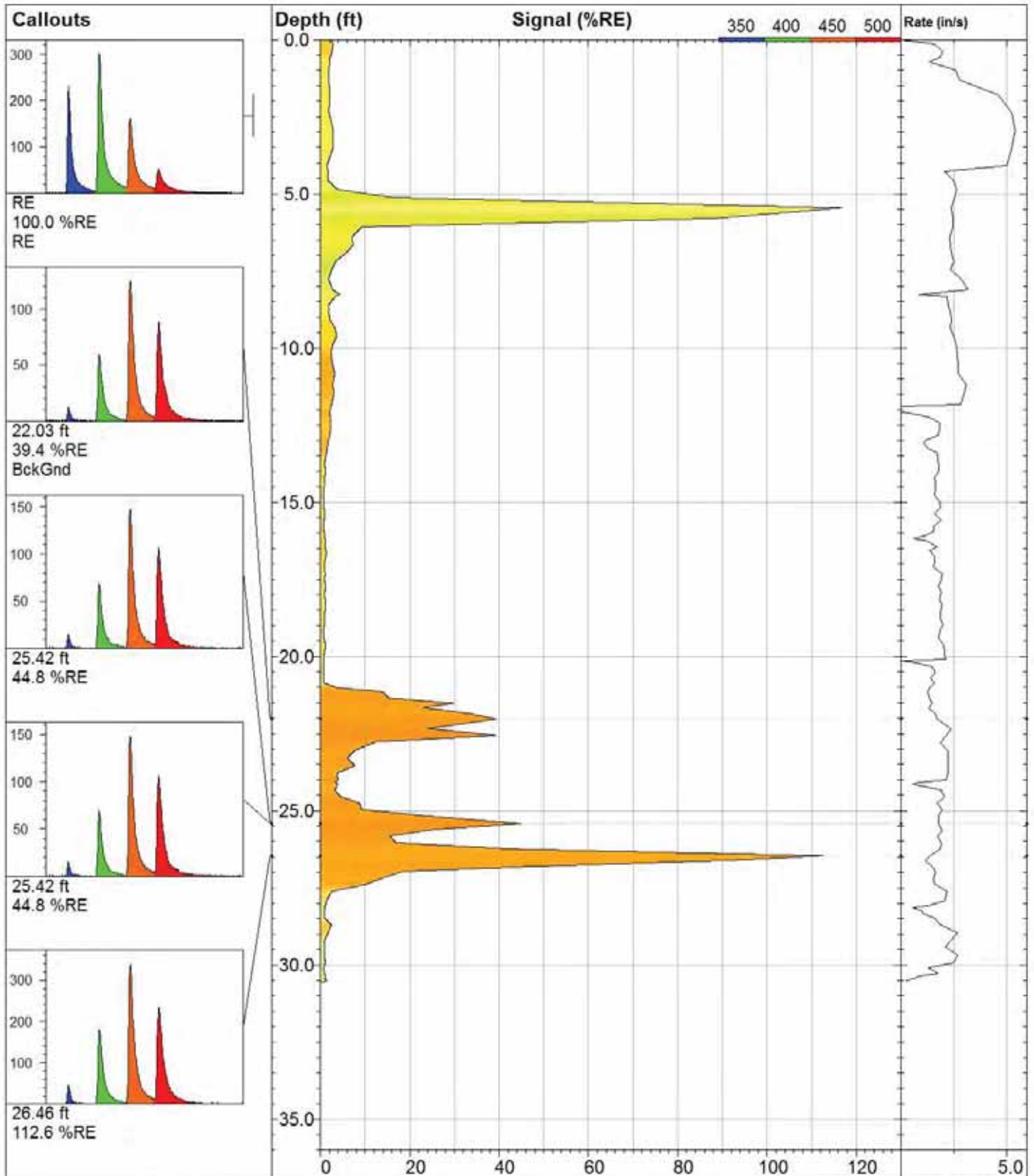
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
2.8 %RE @ 6.26 ft

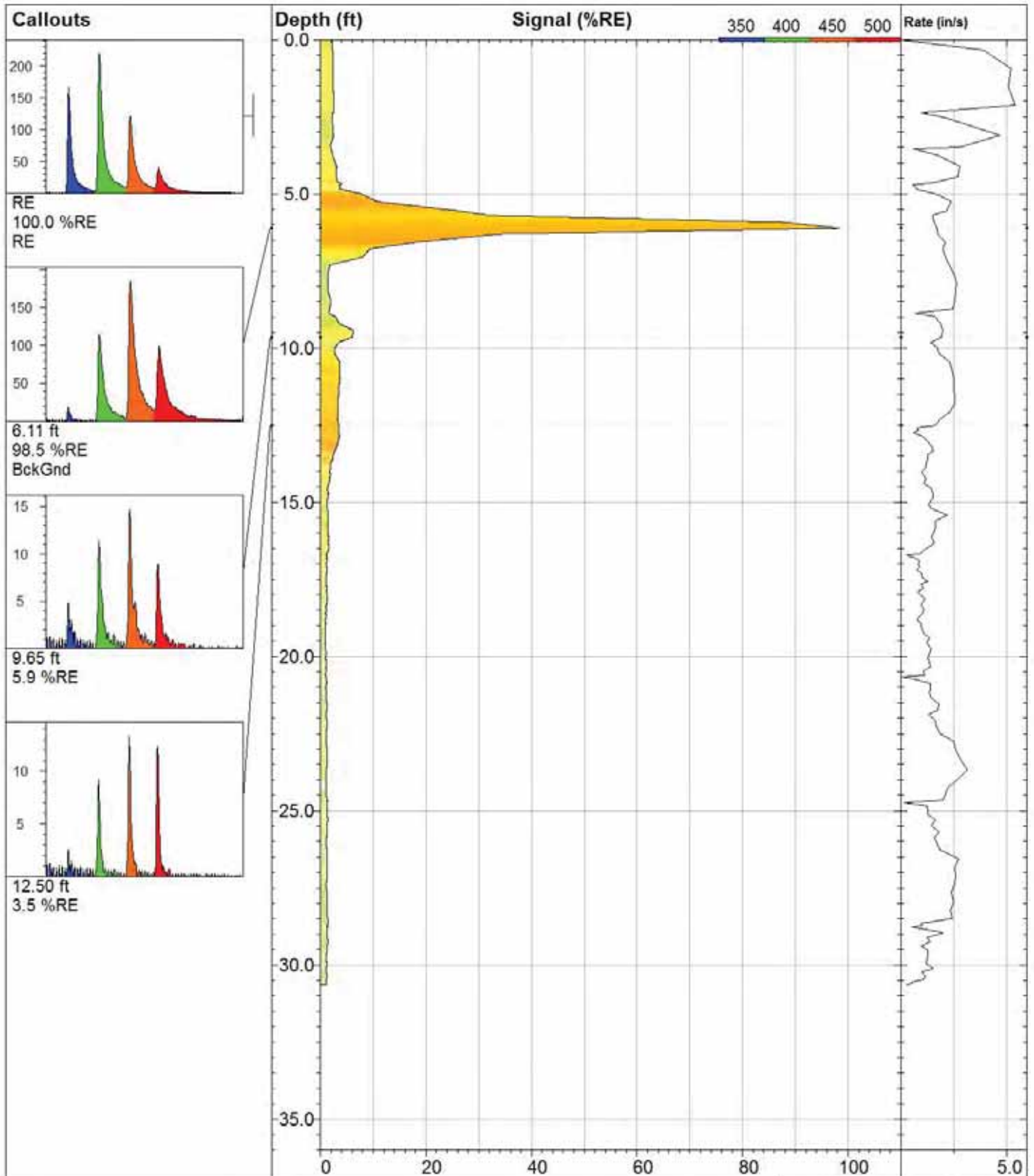
Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-01 09:42 EDT



uv-34		UVOST By Dakota www.DakotaTechnologies.com
Site: 744 Belleville ave	Y Coord.(Lat-N) / System: Unavailable / NA	Final depth: 30.55 ft
Client / Job: AECOM /	X Coord.(Lng-E) / Fix: Unavailable / NA	Max signal: 117.0 %RE @ 5.45 ft
Operator / Unit: Zach / UVOST1317	Elevation: Unavailable	Date & Time: 2015-04-01 10:00 EDT



uv-35

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
Zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

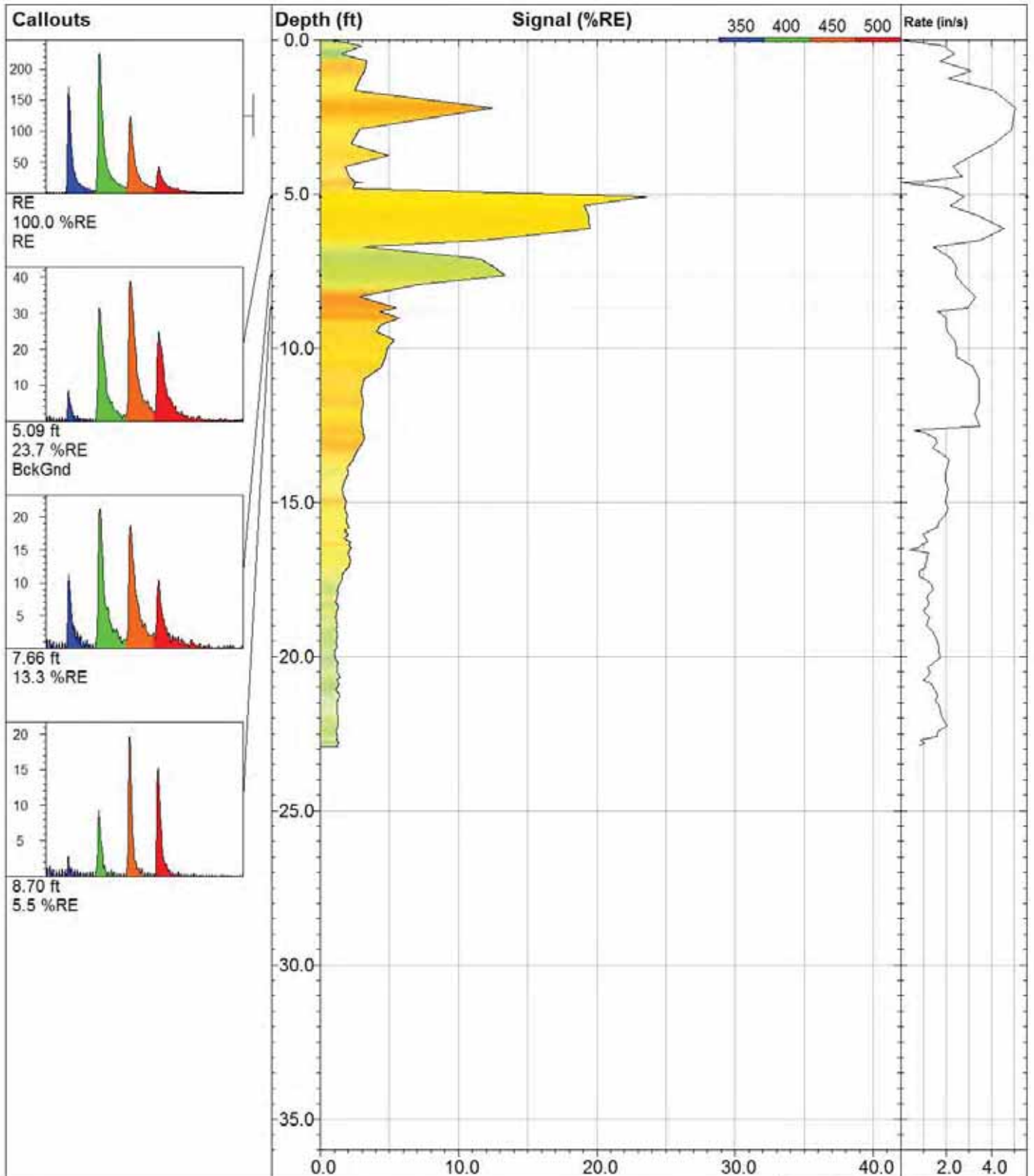
X Coord.(Lng-E) / Fix:
Unavailable / NA

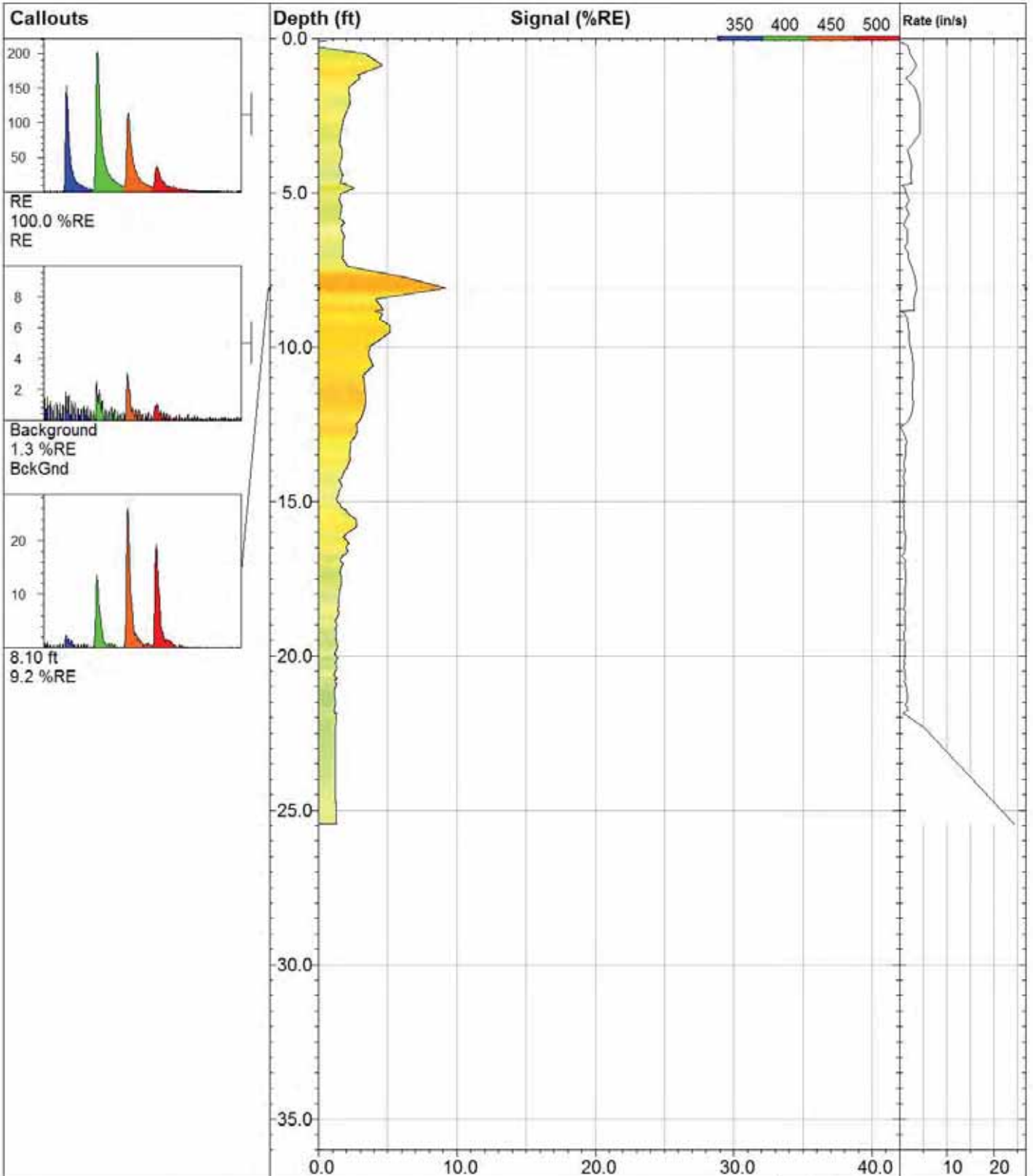
Elevation:
Unavailable

Final depth:
30.63 ft

Max signal:
98.5 %RE @ 6.11 ft

Date & Time:
2015-04-01 10:18 EDT





uv-37

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
25.45 ft

Client / Job:
AECOM /

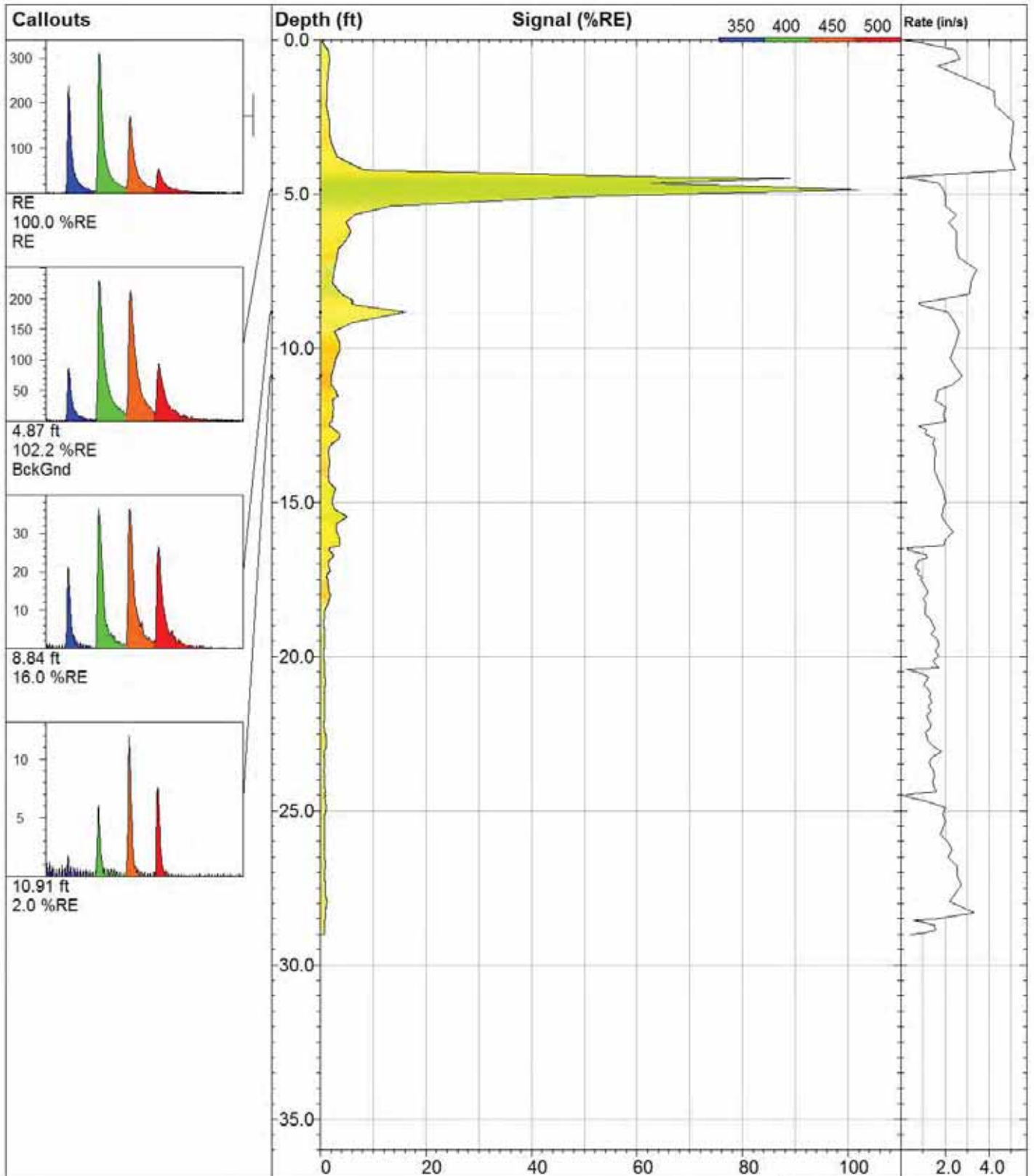
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
9.2 %RE @ 8.10 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-01 10:56 EDT



uv-38

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
29.02 ft

Client / Job:
AECOM /

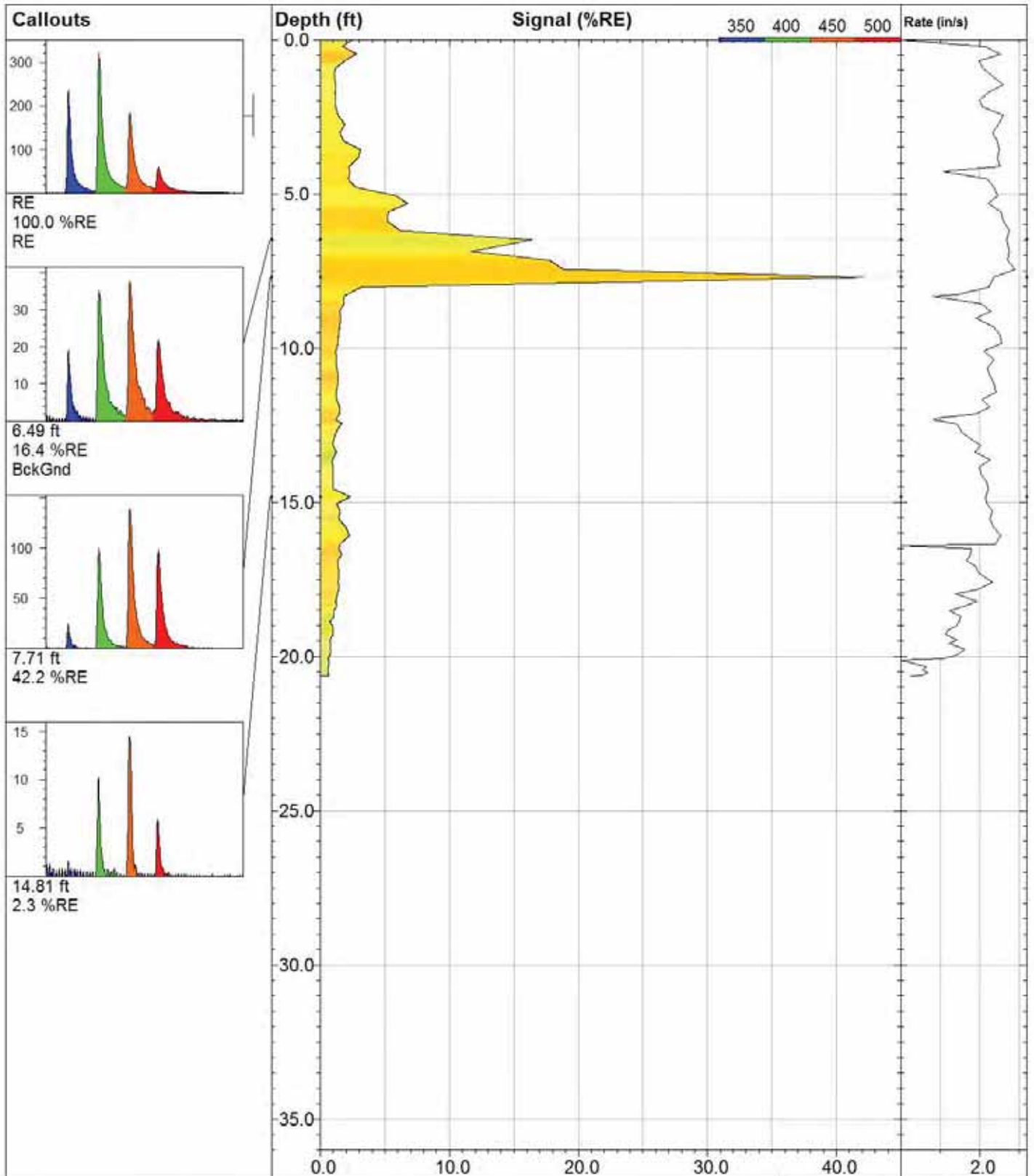
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
102.2 %RE @ 4.87 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-01 11:15 EDT



uv-39

Site:
744 Belleville ave

Client / Job:
AECOM /

Operator / Unit:
Zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

X Coord.(Lng-E) / Fix:
Unavailable / NA

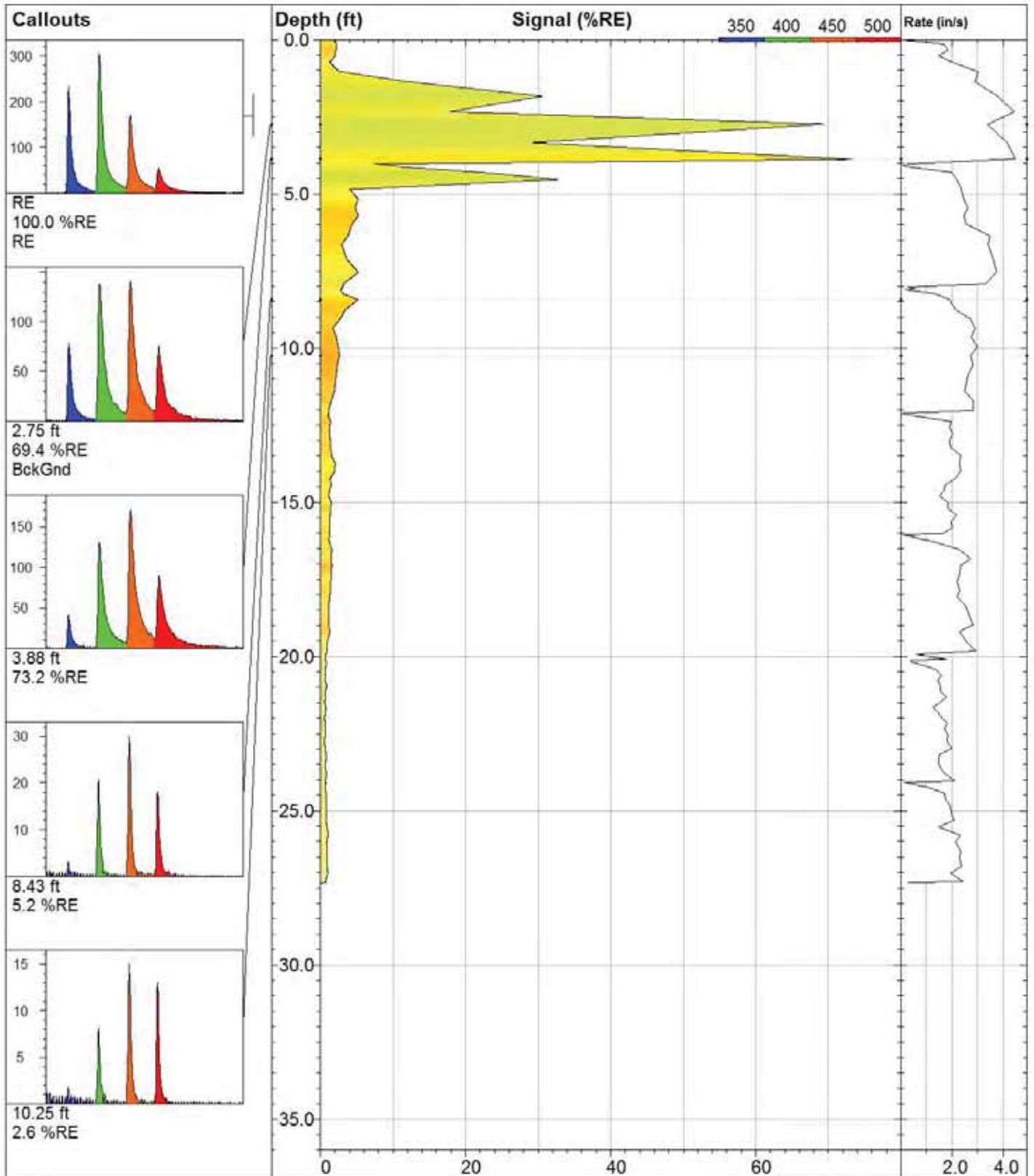
Elevation:
Unavailable

UVOST By Dakota
www.DakotaTechnologies.com

Final depth:
20.63 ft

Max signal:
42.2 %RE @ 7.71 ft

Date & Time:
2015-04-01 11:29 EDT



uv-40

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 Belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
27.33 ft

Client / Job:
AECOM /

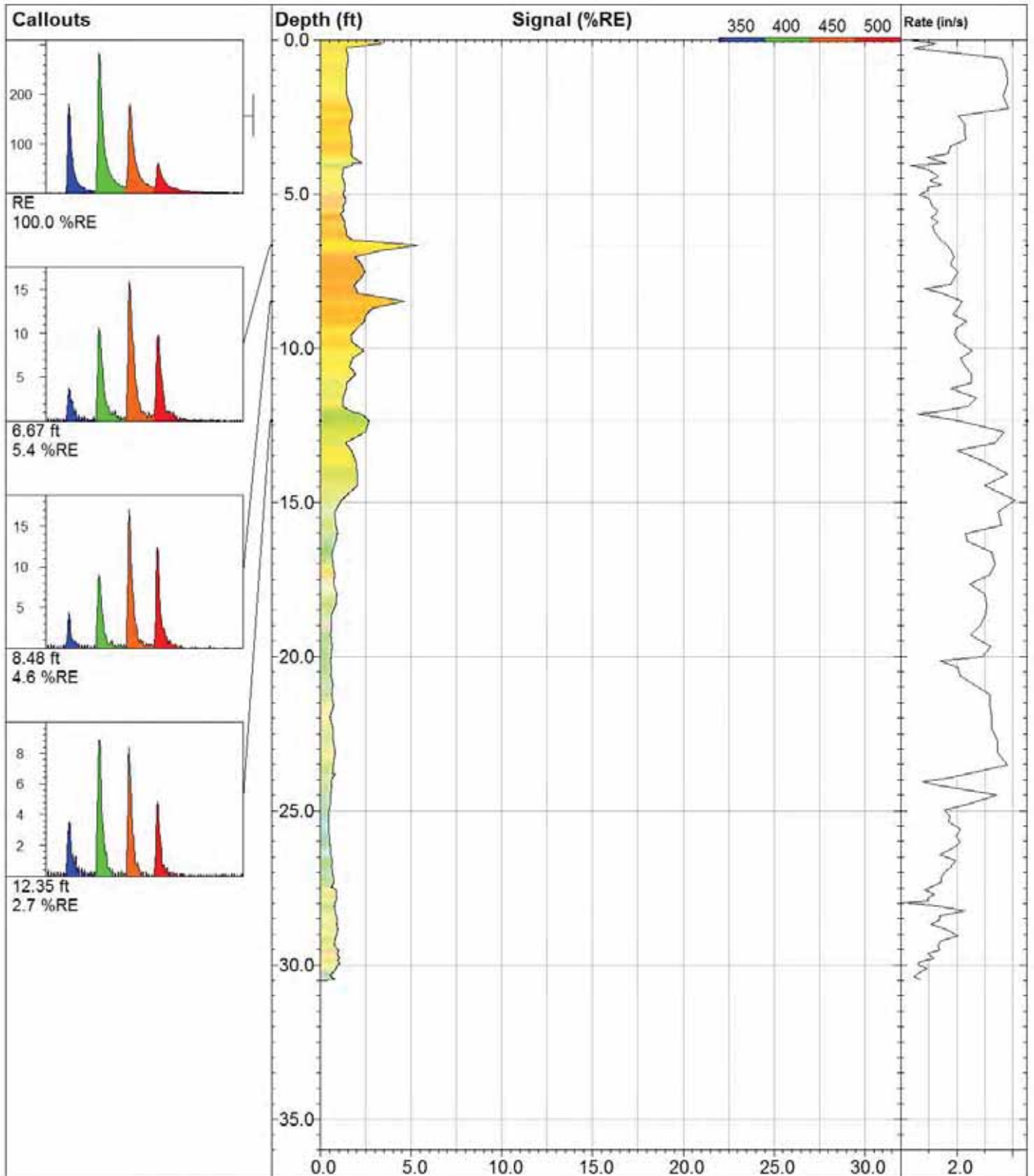
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
73.2 %RE @ 3.88 ft

Operator / Unit:
Zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-01 11:45 EDT



uv-41-02

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
30.49 ft

Client / Job:
aecom /

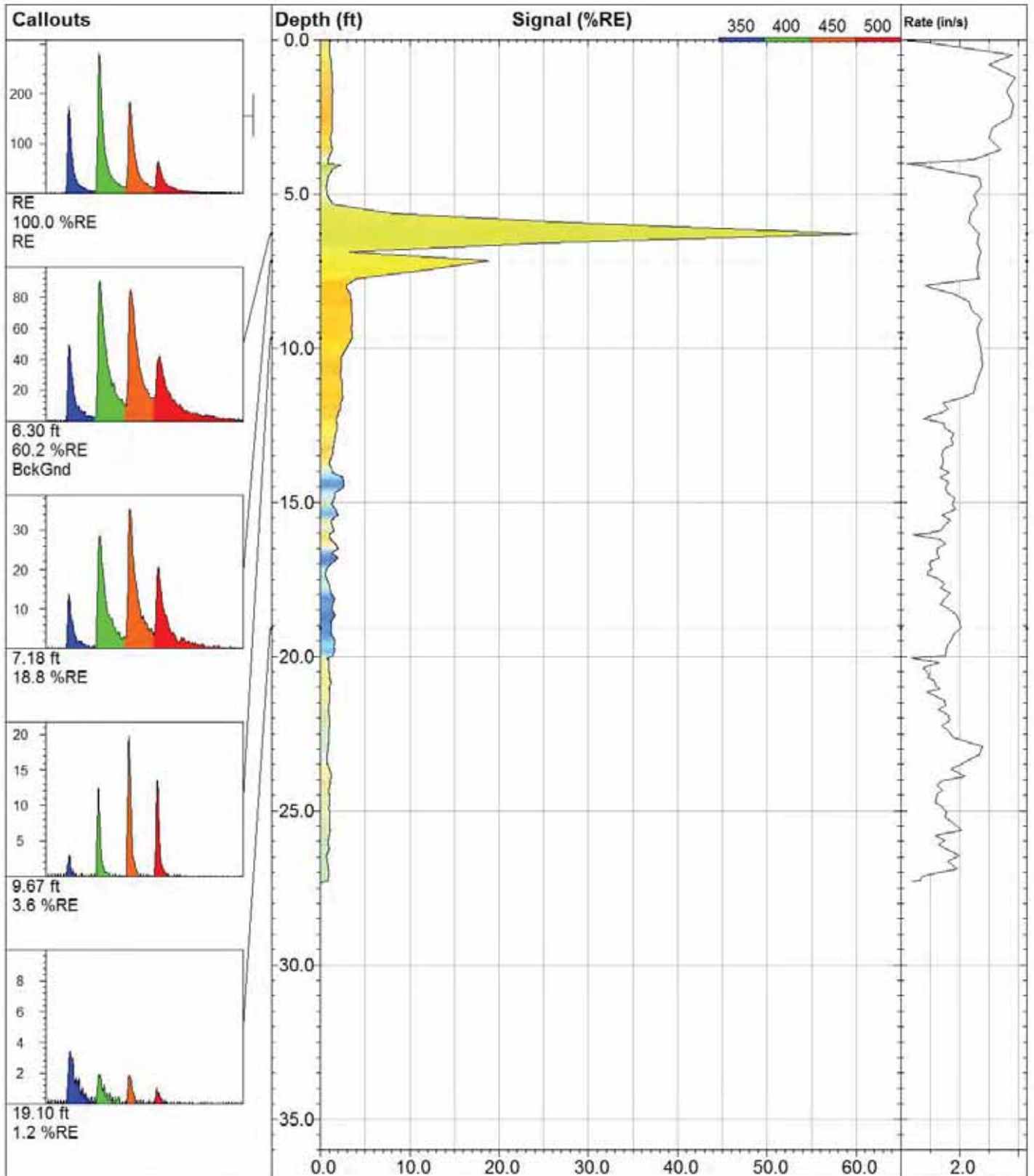
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
5.4 %RE @ 6.67 ft

Operator / Unit:
zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-06 09:12 EDT



uv-42

Site:
744 belleville ave

Client / Job:
aecom /

Operator / Unit:
zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

X Coord.(Lng-E) / Fix:
Unavailable / NA

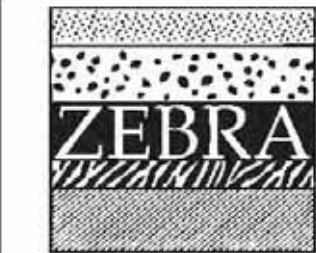
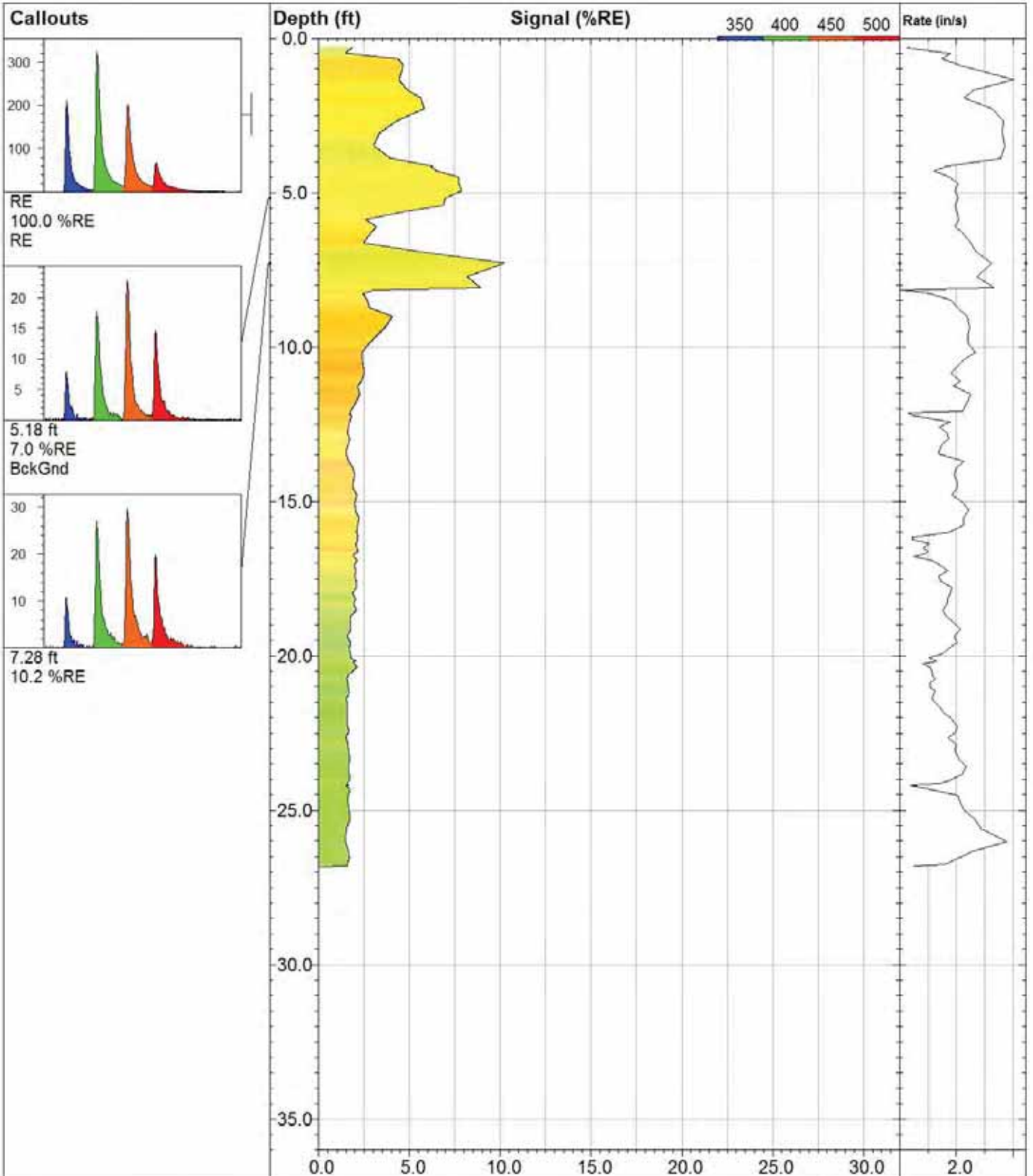
Elevation:
Unavailable

UVOST By Dakota
www.DakotaTechnologies.com

Final depth:
27.31 ft

Max signal:
60.2 %RE @ 6.29 ft

Date & Time:
2015-04-06 09:27 EDT



uv-43

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
26.82 ft

Client / Job:
aecom /

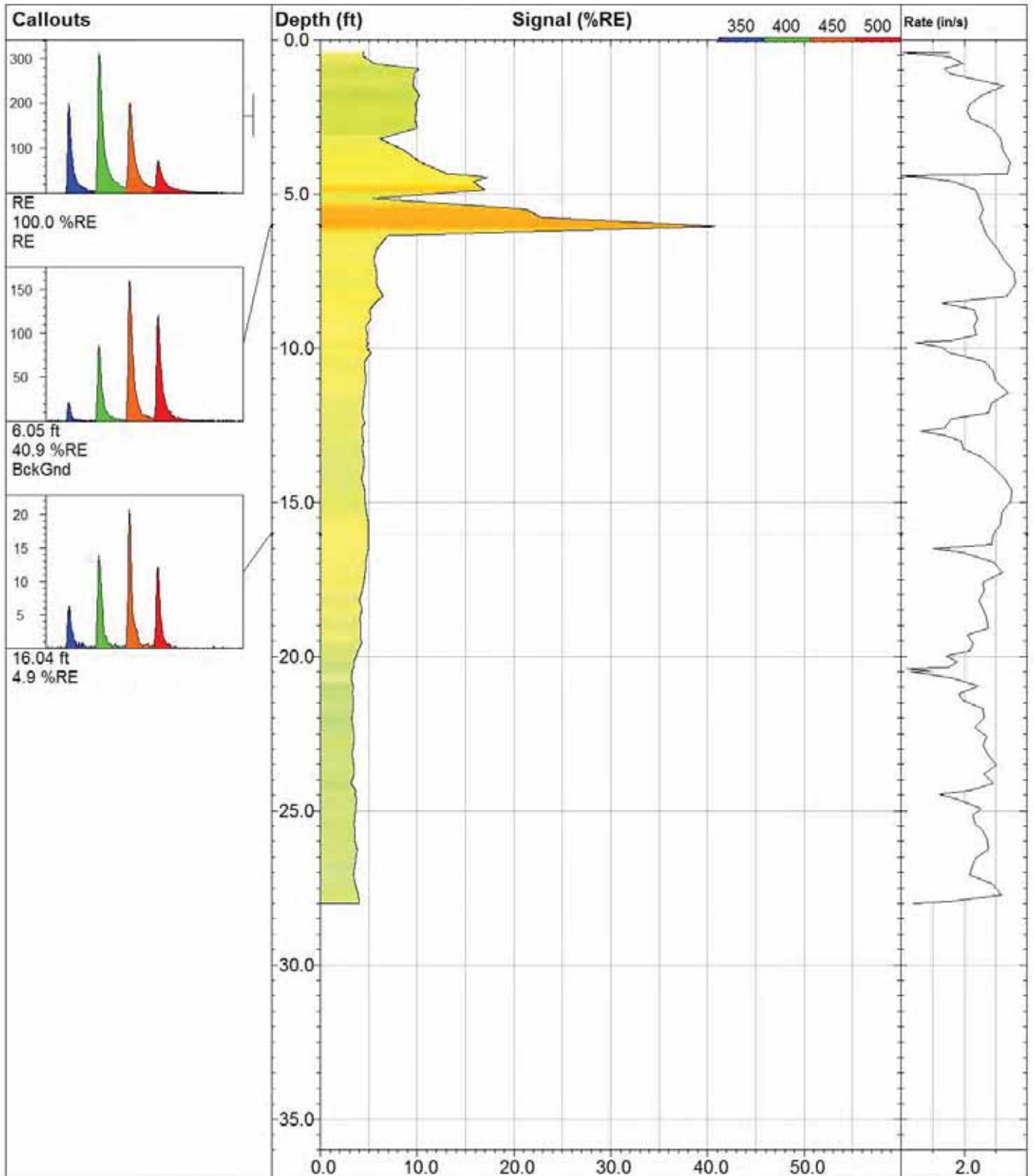
X Coord.(Lng-E) / Fix:
Unavailable / NA

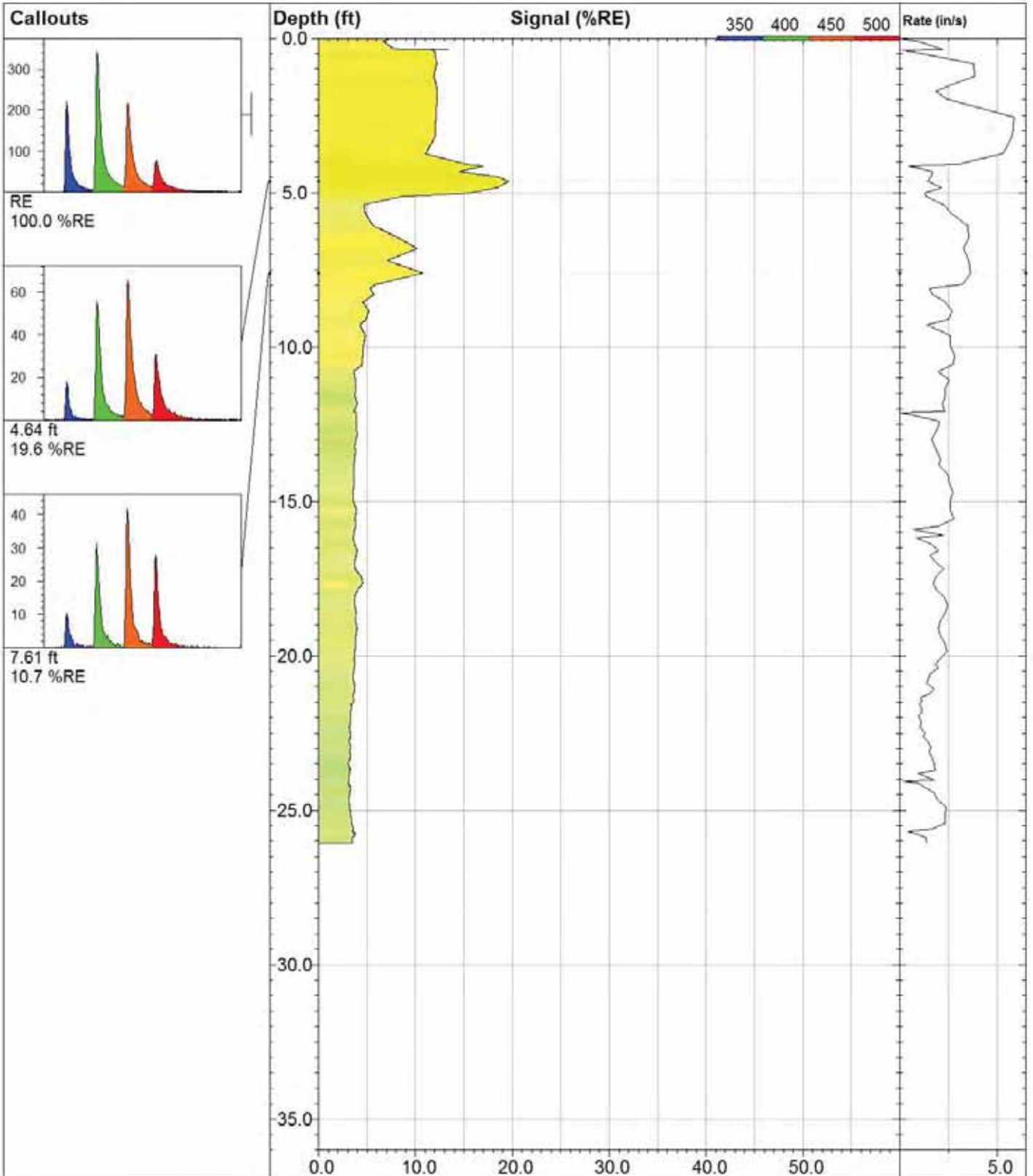
Max signal:
10.2 %RE @ 7.28 ft

Operator / Unit:
zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-06 09:42 EDT





uv-45

Site:
744 belleville ave

Client / Job:
aecom /

Operator / Unit:
zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA

X Coord.(Lng-E) / Fix:
Unavailable / NA

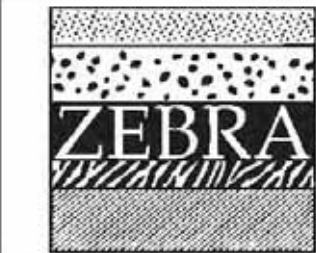
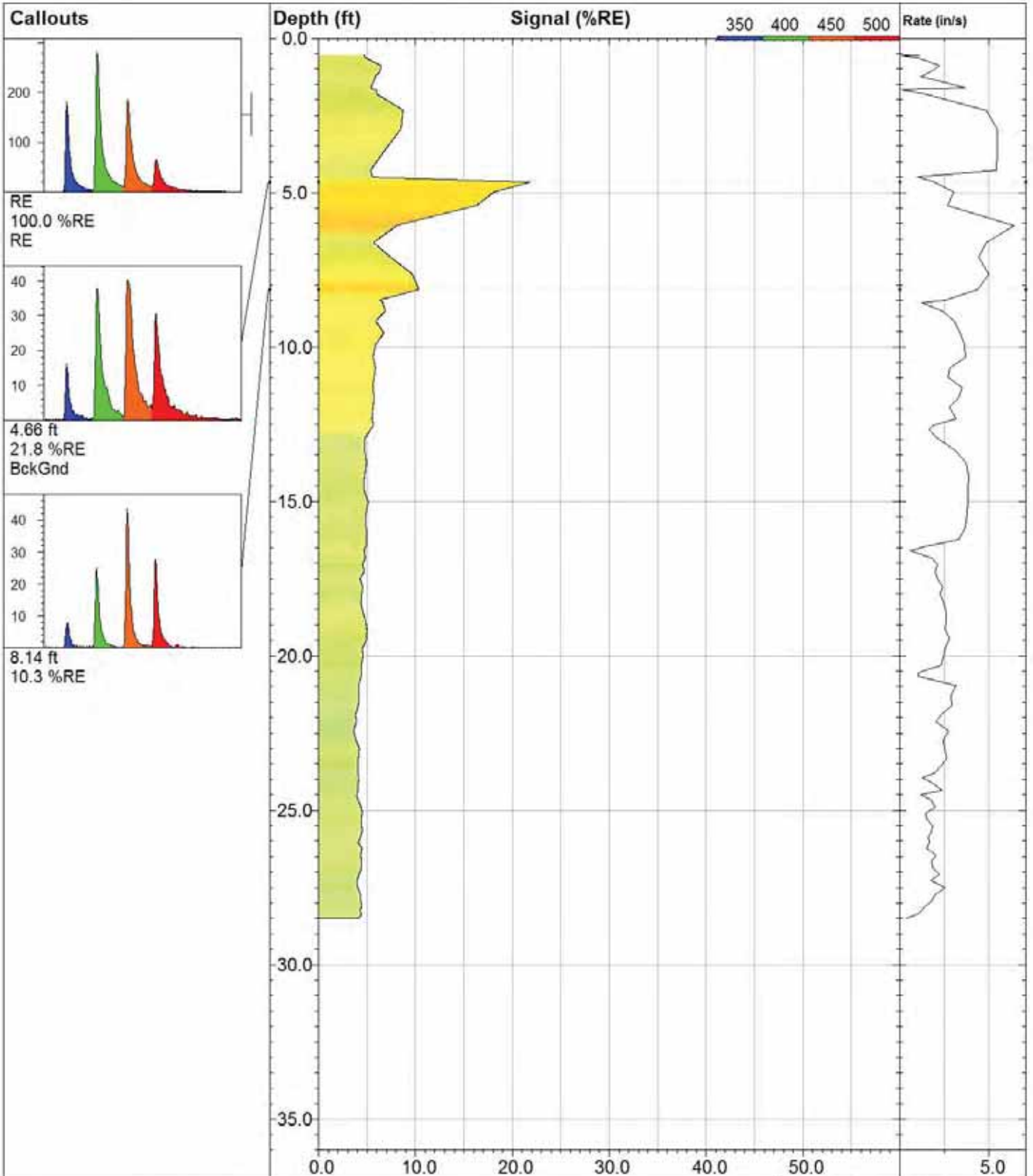
Elevation:
Unavailable

UVOST By Dakota
www.DakotaTechnologies.com

Final depth:
26.08 ft

Max signal:
19.6 %RE @ 4.64 ft

Date & Time:
2015-04-06 10:32 EDT



uv-46

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
28.49 ft

Client / Job:
aecom /

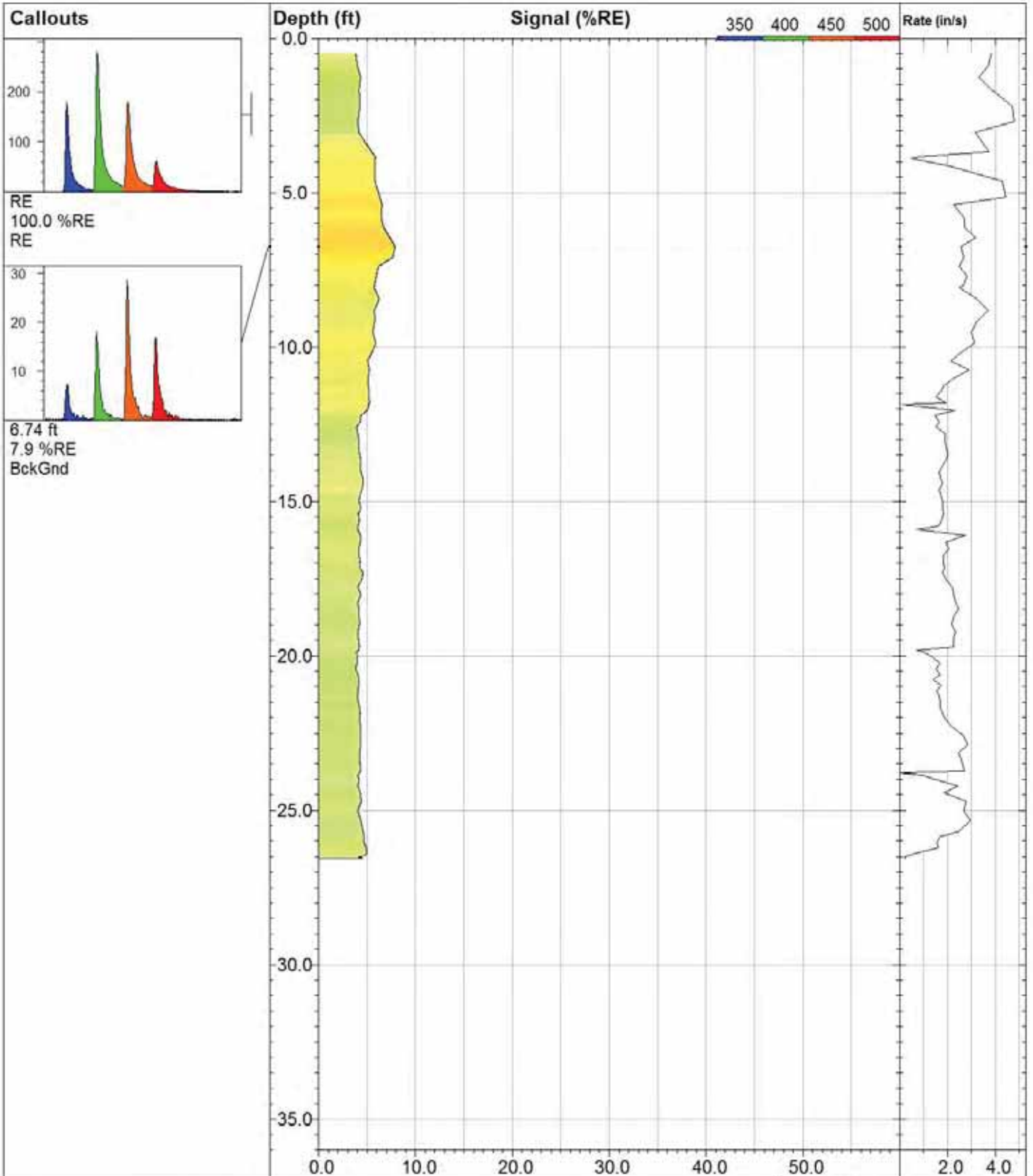
X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
21.8 %RE @ 4.66 ft

Operator / Unit:
zach / UVOST1317

Elevation:
Unavailable

Date & Time:
2015-04-06 10:46 EDT



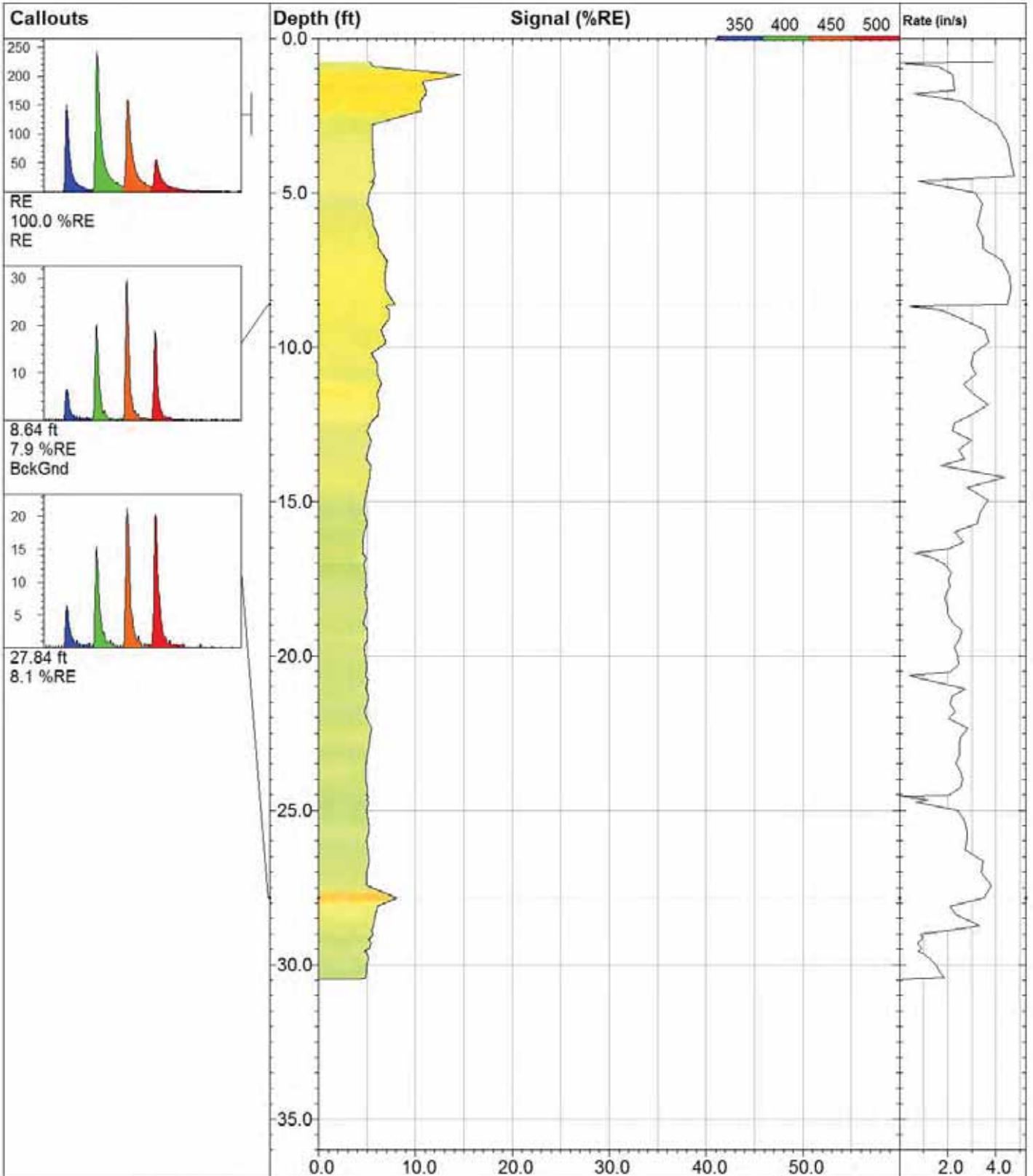
uv-47

Site:
744 belleville ave
Client / Job:
aecom /
Operator / Unit:
zach / UVOST1317

Y Coord.(Lat-N) / System:
Unavailable / NA
X Coord.(Lng-E) / Fix:
Unavailable / NA
Elevation:
Unavailable

UVOST By Dakota
www.DakotaTechnologies.com

Final depth:
26.56 ft
Max signal:
7.9 %RE @ 6.74 ft
Date & Time:
2015-04-06 10:58 EDT



uv-48

UVOST By Dakota
www.DakotaTechnologies.com

Site:
744 belleville ave

Y Coord.(Lat-N) / System:
Unavailable / NA

Final depth:
30.46 ft

Client / Job:
aecom /

X Coord.(Lng-E) / Fix:
Unavailable / NA

Max signal:
14.6 %RE @ 1.18 ft

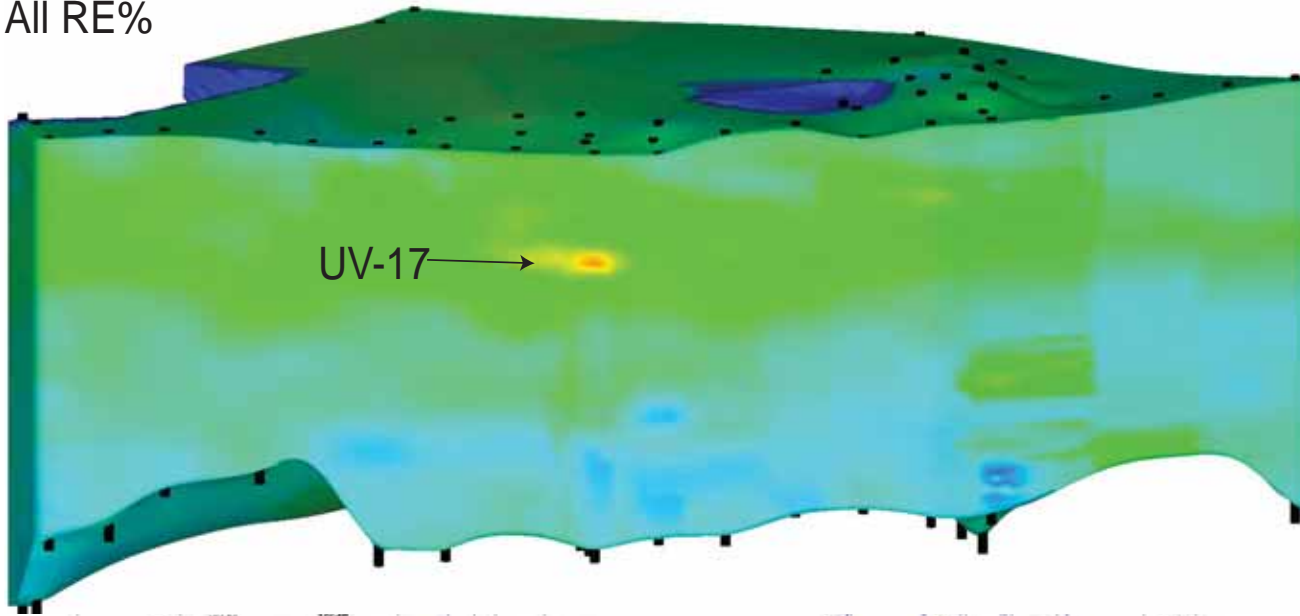
Operator / Unit:
zach / UVOST1317

Elevation:
Unavailable

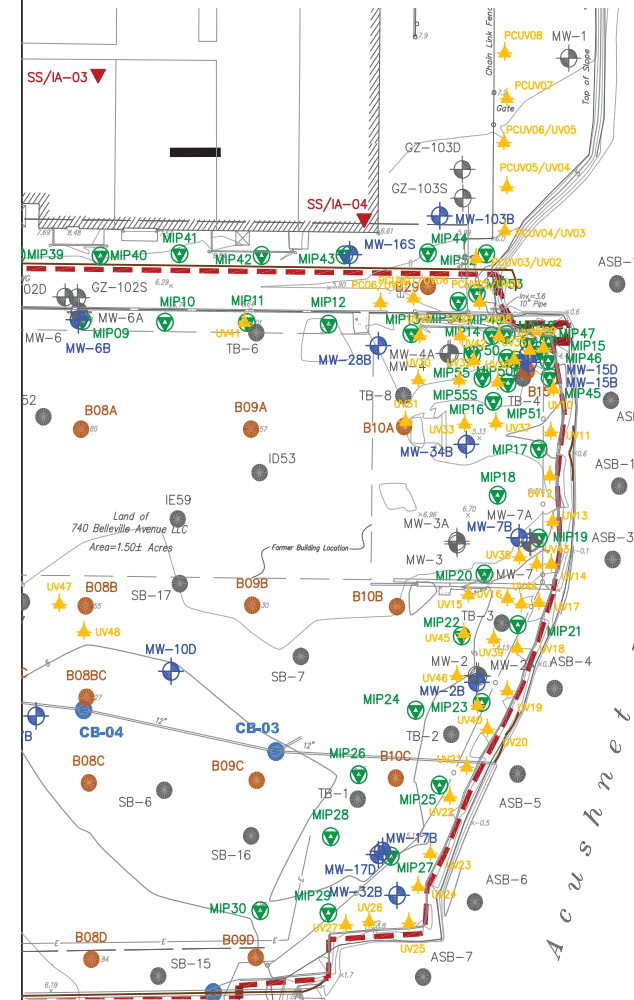
Date & Time:
2015-04-06 11:31 EDT

Environmental Visualization System 3-D UVOST Presentation

All RE%



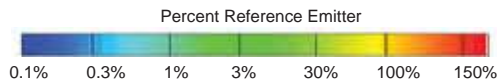
UVOST Investigation Area



UV-17 →

RE % > 30

Legend



CLIENT	Former Aerovox Facility New Bedford, MA		
PROJ	IRA Status Report #4 - UVOST Investigation		
SCALE	DES BY	HAB	06/15/2015
	CHK BY	JL	06/15/2015

TITLE **EVS 3D Model - UVOST Investigation
Former Aerovox Facility**

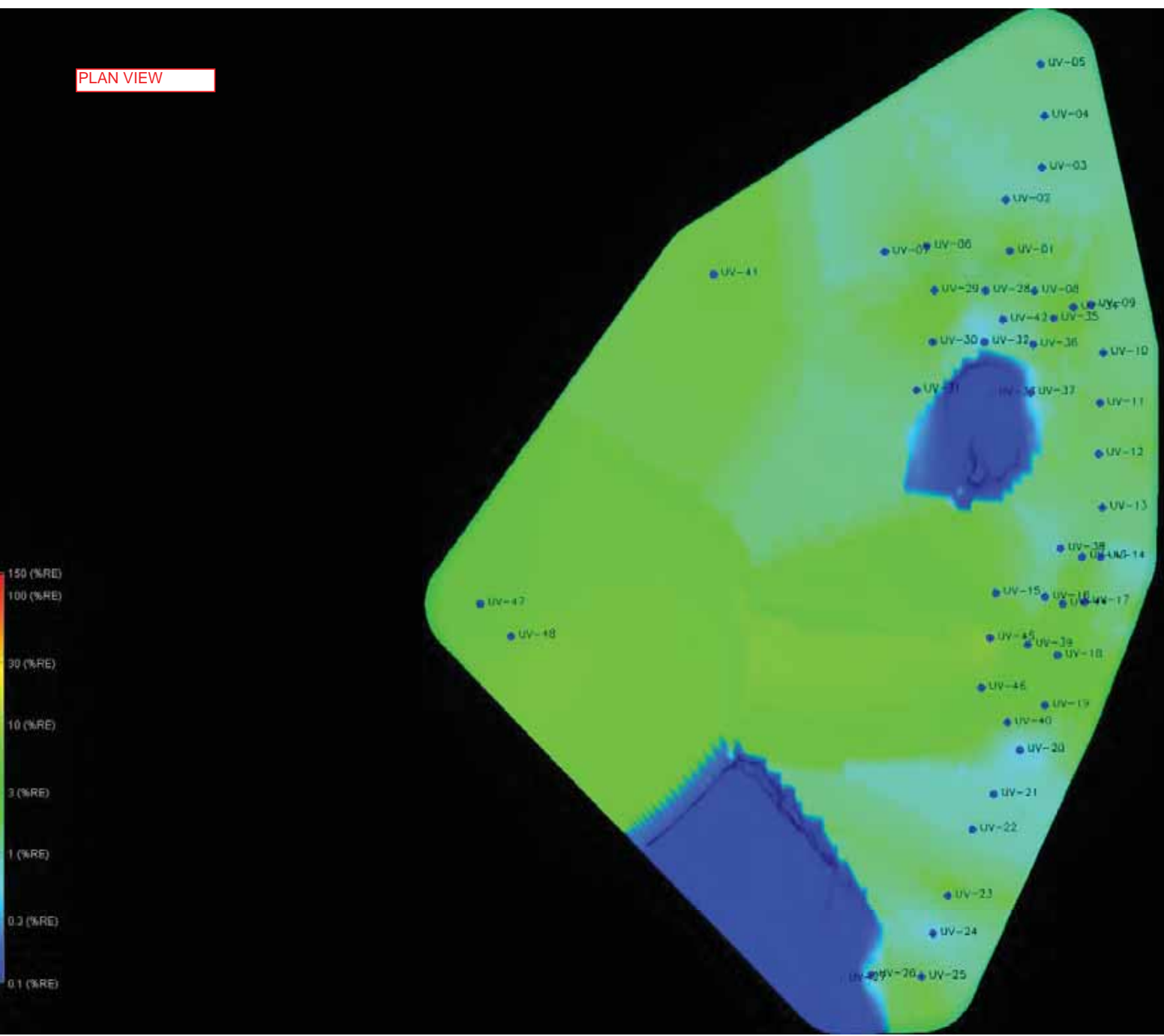


PROJ NO
60422003

FIGURE
X

\\10.90.4.1\rem\Shell Portfolio\Sites Active\WV\171297 - Congo Refinery (HP)\15_Reports\LBA Investigation Report\EVS

PLAN VIEW



APPENDIX B

Soil, Sub-Slab Soil Vapor, and Groundwater Analytical Reports

Soil Analytical Reports



ANALYTICAL REPORT

Lab Number:	L1505694
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX-UVOST PRECLEAR
Project Number:	39744051.40003
Report Date:	03/30/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX-UVOST PRECLEAR

Project Number: 39744051.40003

Lab Number: L1505694

Report Date: 03/30/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1505694-01	TRIP BLANK	SOIL	NEW BEDFORD, MA	03/23/15 12:00	03/24/15
L1505694-02	PC-UV-02/4-5	SOIL	NEW BEDFORD, MA	03/23/15 12:45	03/24/15
L1505694-03	PC-UV-02/3-4	SOIL	NEW BEDFORD, MA	03/23/15 12:50	03/24/15
L1505694-04	PC-UV-05/0-2	SOIL	NEW BEDFORD, MA	03/23/15 15:40	03/24/15
L1505694-05	PC-UV-08/0-2	SOIL	NEW BEDFORD, MA	03/24/15 10:30	03/24/15



Project Name: AEROVOX-UVOST PRECLEAR

Lab Number: L1505694

Project Number: 39744051.40003

Report Date: 03/30/15

MADEP MCP Response Action Analytical Report Certification

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

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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

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



Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question G:

L1505694-02: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration verification, associated with L1505694-01 and -02, is outside acceptance criteria for dichlorodifluoromethane (159%), but within overall method criteria.

In reference to question I:

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

PCBs

In reference to question G:


L1505694-02: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

L1505694-02: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene and decachlorobiphenyl (all 0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 03/30/15

ORGANICS

VOLATILES

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

SAMPLE RESULTS

Lab ID: L1505694-01
 Client ID: TRIP BLANK
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 03/26/15 12:14
 Analyst: MV
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 03/23/15 12:00
 Date Received: 03/24/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	--	1
1,1-Dichloroethane	ND		ug/kg	1.5	--	1
Chloroform	ND		ug/kg	1.5	--	1
Carbon tetrachloride	ND		ug/kg	1.0	--	1
1,2-Dichloropropane	ND		ug/kg	3.5	--	1
Dibromochloromethane	ND		ug/kg	1.0	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	--	1
Tetrachloroethene	ND		ug/kg	1.0	--	1
Chlorobenzene	ND		ug/kg	1.0	--	1
1,2-Dichloroethane	ND		ug/kg	1.0	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	--	1
Bromodichloromethane	ND		ug/kg	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--	1
Bromoform	ND		ug/kg	4.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--	1
Chloromethane	ND		ug/kg	4.0	--	1
Vinyl chloride	ND		ug/kg	2.0	--	1
Chloroethane	ND		ug/kg	2.0	--	1
1,1-Dichloroethene	ND		ug/kg	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--	1
Trichloroethene	ND		ug/kg	1.0	--	1
1,2-Dichlorobenzene	ND		ug/kg	4.0	--	1
1,3-Dichlorobenzene	ND		ug/kg	4.0	--	1
1,4-Dichlorobenzene	ND		ug/kg	4.0	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--	1
Dichlorodifluoromethane	ND		ug/kg	10	--	1
1,2-Dibromoethane	ND		ug/kg	4.0	--	1

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

SAMPLE RESULTS

Lab ID: L1505694-01
Client ID: TRIP BLANK
Sample Location: NEW BEDFORD, MA

Date Collected: 03/23/15 12:00
Date Received: 03/24/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichloropropane	ND		ug/kg	4.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--	1
o-Chlorotoluene	ND		ug/kg	4.0	--	1
p-Chlorotoluene	ND		ug/kg	4.0	--	1
Hexachlorobutadiene	ND		ug/kg	4.0	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	4.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

SAMPLE RESULTS

Lab ID: L1505694-02
 Client ID: PC-UV-02/4-5
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 03/26/15 17:07
 Analyst: MV
 Percent Solids: 81%

Date Collected: 03/23/15 12:45
 Date Received: 03/24/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	500	--	1
1,1-Dichloroethane	ND		ug/kg	75	--	1
Chloroform	ND		ug/kg	75	--	1
Carbon tetrachloride	58		ug/kg	50	--	1
1,2-Dichloropropane	ND		ug/kg	180	--	1
Dibromochloromethane	ND		ug/kg	50	--	1
1,1,2-Trichloroethane	ND		ug/kg	75	--	1
Tetrachloroethene	ND		ug/kg	50	--	1
Chlorobenzene	250		ug/kg	50	--	1
1,2-Dichloroethane	ND		ug/kg	50	--	1
1,1,1-Trichloroethane	ND		ug/kg	50	--	1
Bromodichloromethane	ND		ug/kg	50	--	1
trans-1,3-Dichloropropene	ND		ug/kg	50	--	1
cis-1,3-Dichloropropene	ND		ug/kg	50	--	1
1,3-Dichloropropene, Total	ND		ug/kg	50	--	1
Bromoform	ND		ug/kg	200	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--	1
Chloromethane	ND		ug/kg	200	--	1
Vinyl chloride	ND		ug/kg	100	--	1
Chloroethane	ND		ug/kg	100	--	1
1,1-Dichloroethene	ND		ug/kg	50	--	1
trans-1,2-Dichloroethene	ND		ug/kg	75	--	1
Trichloroethene	3500		ug/kg	50	--	1
1,2-Dichlorobenzene	ND		ug/kg	200	--	1
1,3-Dichlorobenzene	620		ug/kg	200	--	1
1,4-Dichlorobenzene	1600		ug/kg	200	--	1
cis-1,2-Dichloroethene	64		ug/kg	50	--	1
1,2-Dichloroethene, Total	64		ug/kg	50	--	1
Dichlorodifluoromethane	ND		ug/kg	500	--	1
1,2-Dibromoethane	ND		ug/kg	200	--	1

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

SAMPLE RESULTS

Lab ID: L1505694-02
Client ID: PC-UV-02/4-5
Sample Location: NEW BEDFORD, MA

Date Collected: 03/23/15 12:45
Date Received: 03/24/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichloropropane	ND		ug/kg	200	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--	1
o-Chlorotoluene	ND		ug/kg	200	--	1
p-Chlorotoluene	ND		ug/kg	200	--	1
Hexachlorobutadiene	ND		ug/kg	200	--	1
1,2,4-Trichlorobenzene	500		ug/kg	200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 03/26/15 09:35
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 5035 High - Westborough Lab for sample(s): 02 Batch: WG771434-3					
Methylene chloride	ND		ug/kg	500	--
1,1-Dichloroethane	ND		ug/kg	75	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	180	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	75	--
Tetrachloroethene	ND		ug/kg	50	--
Chlorobenzene	ND		ug/kg	50	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	50	--
Bromodichloromethane	ND		ug/kg	50	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	50	--
1,3-Dichloropropene, Total	ND		ug/kg	50	--
1,1-Dichloropropene	ND		ug/kg	200	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--
Benzene	ND		ug/kg	50	--
Toluene	ND		ug/kg	75	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	100	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	50	--

Project Name: AEROVOX-UVOST PRECLEAR

Lab Number: L1505694

Project Number: 39744051.40003

Report Date: 03/30/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 03/26/15 09:35
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 5035 High - Westborough Lab for sample(s): 02 Batch: WG771434-3					
1,2-Dichlorobenzene	ND		ug/kg	200	--
1,3-Dichlorobenzene	ND		ug/kg	200	--
1,4-Dichlorobenzene	ND		ug/kg	200	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
Xylenes, Total	ND		ug/kg	100	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	200	--
1,2,3-Trichloropropane	ND		ug/kg	200	--
Styrene	ND		ug/kg	100	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	1800	--
Carbon disulfide	ND		ug/kg	200	--
Methyl ethyl ketone	ND		ug/kg	500	--
Methyl isobutyl ketone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	200	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	250	--
1,2-Dibromoethane	ND		ug/kg	200	--
1,3-Dichloropropane	ND		ug/kg	200	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--
Bromobenzene	ND		ug/kg	250	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	200	--
o-Chlorotoluene	ND		ug/kg	200	--



Project Name: AEROVOX-UVOST PRECLEAR

Lab Number: L1505694

Project Number: 39744051.40003

Report Date: 03/30/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
 Analytical Date: 03/26/15 09:35
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 5035 High - Westborough Lab for sample(s): 02 Batch: WG771434-3					
p-Chlorotoluene	ND		ug/kg	200	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	200	--
1,2,4-Trichlorobenzene	ND		ug/kg	200	--
1,3,5-Trimethylbenzene	ND		ug/kg	200	--
1,2,4-Trimethylbenzene	ND		ug/kg	200	--
Diethyl ether	ND		ug/kg	250	--
Diisopropyl Ether	ND		ug/kg	200	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	--
1,4-Dioxane	ND		ug/kg	5000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	101		70-130

Project Name: AEROVOX-UVOST PRECLEAR

Lab Number: L1505694

Project Number: 39744051.40003

Report Date: 03/30/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 03/26/15 09:35
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01 Batch: WG771465-3					
Methylene chloride	ND		ug/kg	10	--
1,1-Dichloroethane	ND		ug/kg	1.5	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	3.5	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.5	--
Tetrachloroethene	ND		ug/kg	1.0	--
Chlorobenzene	ND		ug/kg	1.0	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	1.0	--
Bromodichloromethane	ND		ug/kg	1.0	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--
1,1-Dichloropropene	ND		ug/kg	4.0	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--
Benzene	ND		ug/kg	1.0	--
Toluene	ND		ug/kg	1.5	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	2.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	1.0	--



Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 03/26/15 09:35
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01 Batch: WG771465-3					
1,2-Dichlorobenzene	ND		ug/kg	4.0	--
1,3-Dichlorobenzene	ND		ug/kg	4.0	--
1,4-Dichlorobenzene	ND		ug/kg	4.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	2.0	--
Xylenes, Total	ND		ug/kg	2.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	4.0	--
1,2,3-Trichloropropane	ND		ug/kg	4.0	--
Styrene	ND		ug/kg	2.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	36	--
Carbon disulfide	ND		ug/kg	4.0	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	4.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	5.0	--
1,2-Dibromoethane	ND		ug/kg	4.0	--
1,3-Dichloropropane	ND		ug/kg	4.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--
Bromobenzene	ND		ug/kg	5.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	4.0	--
o-Chlorotoluene	ND		ug/kg	4.0	--



Project Name: AEROVOX-UVOST PRECLEAR

Lab Number: L1505694

Project Number: 39744051.40003

Report Date: 03/30/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 03/26/15 09:35
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01 Batch: WG771465-3					
p-Chlorotoluene	ND		ug/kg	4.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	4.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	4.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	4.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	4.0	--
Diethyl ether	ND		ug/kg	5.0	--
Diisopropyl Ether	ND		ug/kg	4.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	--
1,4-Dioxane	ND		ug/kg	40	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG771434-1 WG771434-2										
Methylene chloride	107		103		70-130		4		4	20
1,1-Dichloroethane	107		104		70-130		3		3	20
Chloroform	105		104		70-130		1		1	20
Carbon tetrachloride	115		110		70-130		4		4	20
1,2-Dichloropropane	104		103		70-130		1		1	20
Dibromochloromethane	101		101		70-130		0		0	20
1,1,2-Trichloroethane	99		101		70-130		2		2	20
Tetrachloroethene	112		108		70-130		4		4	20
Chlorobenzene	105		104		70-130		1		1	20
Trichlorofluoromethane	122		118		70-130		3		3	20
1,2-Dichloroethane	102		103		70-130		1		1	20
1,1,1-Trichloroethane	113		109		70-130		4		4	20
Bromodichloromethane	104		105		70-130		1		1	20
trans-1,3-Dichloropropene	101		102		70-130		1		1	20
cis-1,3-Dichloropropene	105		104		70-130		1		1	20
1,1-Dichloropropene	114		109		70-130		4		4	20
Bromoform	98		99		70-130		1		1	20
1,1,2,2-Tetrachloroethane	95		94		70-130		1		1	20
Benzene	107		104		70-130		3		3	20
Toluene	105		102		70-130		3		3	20
Ethylbenzene	108		104		70-130		4		4	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG771434-1 WG771434-2												
Chloromethane	103		99		70-130		4		4			20
Bromomethane	99		96		70-130		3		3			20
Vinyl chloride	111		104		70-130		7		7			20
Chloroethane	109		109		70-130		0		0			20
1,1-Dichloroethene	117		111		70-130		5		5			20
trans-1,2-Dichloroethene	110		105		70-130		5		5			20
Trichloroethene	110		106		70-130		4		4			20
1,2-Dichlorobenzene	103		101		70-130		2		2			20
1,3-Dichlorobenzene	105		101		70-130		4		4			20
1,4-Dichlorobenzene	105		101		70-130		4		4			20
Methyl tert butyl ether	102		102		70-130		0		0			20
p/m-Xylene	107		104		70-130		3		3			20
o-Xylene	107		105		70-130		2		2			20
cis-1,2-Dichloroethene	109		105		70-130		4		4			20
Dibromomethane	103		104		70-130		1		1			20
1,2,3-Trichloropropane	97		97		70-130		0		0			20
Styrene	108		107		70-130		1		1			20
Dichlorodifluoromethane	110		106		70-130		4		4			20
Acetone	117		117		70-130		0		0			20
Carbon disulfide	110		105		70-130		5		5			20
Methyl ethyl ketone	92		93		70-130		1		1			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG771434-1 WG771434-2										
Methyl isobutyl ketone	99		104		70-130		5			20
2-Hexanone	101		99		70-130		2			20
Bromochloromethane	106		103		70-130		3			20
Tetrahydrofuran	92		103		70-130		11			20
2,2-Dichloropropane	113		109		70-130		4			20
1,2-Dibromoethane	98		101		70-130		3			20
1,3-Dichloropropane	100		102		70-130		2			20
1,1,1,2-Tetrachloroethane	105		104		70-130		1			20
Bromobenzene	102		100		70-130		2			20
n-Butylbenzene	112		107		70-130		5			20
sec-Butylbenzene	111		105		70-130		6			20
tert-Butylbenzene	109		104		70-130		5			20
o-Chlorotoluene	103		102		70-130		1			20
p-Chlorotoluene	106		101		70-130		5			20
1,2-Dibromo-3-chloropropane	91		93		70-130		2			20
Hexachlorobutadiene	116		109		70-130		6			20
Isopropylbenzene	108		103		70-130		5			20
p-Isopropyltoluene	111		105		70-130		6			20
Naphthalene	97		97		70-130		0			20
n-Propylbenzene	108		103		70-130		5			20
1,2,3-Trichlorobenzene	102		103		70-130		1			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG771434-1 WG771434-2										
1,2,4-Trichlorobenzene	109		105		70-130		4			20
1,3,5-Trimethylbenzene	107		103		70-130		4			20
1,2,4-Trimethylbenzene	107		103		70-130		4			20
Diethyl ether	102		101		70-130		1			20
Diisopropyl Ether	105		103		70-130		2			20
Ethyl-Tert-Butyl-Ether	105		104		70-130		1			20
Tertiary-Amyl Methyl Ether	103		103		70-130		0			20
1,4-Dioxane	95		99		70-130		4			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	97		100		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	99		97		70-130
Dibromofluoromethane	100		100		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG771465-1 WG771465-2												
Methylene chloride	107		103		70-130		4		4			20
1,1-Dichloroethane	107		104		70-130		3		3			20
Chloroform	105		104		70-130		1		1			20
Carbon tetrachloride	115		110		70-130		4		4			20
1,2-Dichloropropane	104		103		70-130		1		1			20
Dibromochloromethane	101		101		70-130		0		0			20
1,1,2-Trichloroethane	99		101		70-130		2		2			20
Tetrachloroethene	112		108		70-130		4		4			20
Chlorobenzene	105		104		70-130		1		1			20
Trichlorofluoromethane	122		118		70-130		3		3			20
1,2-Dichloroethane	102		103		70-130		1		1			20
1,1,1-Trichloroethane	113		109		70-130		4		4			20
Bromodichloromethane	104		105		70-130		1		1			20
trans-1,3-Dichloropropene	101		102		70-130		1		1			20
cis-1,3-Dichloropropene	105		104		70-130		1		1			20
1,1-Dichloropropene	114		109		70-130		4		4			20
Bromoform	98		99		70-130		1		1			20
1,1,2,2-Tetrachloroethane	95		94		70-130		1		1			20
Benzene	107		104		70-130		3		3			20
Toluene	105		102		70-130		3		3			20
Ethylbenzene	108		104		70-130		4		4			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG771465-1 WG771465-2										
Chloromethane	103		99		70-130		4		4	20
Bromomethane	99		96		70-130		3		3	20
Vinyl chloride	111		104		70-130		7		7	20
Chloroethane	109		109		70-130		0		0	20
1,1-Dichloroethene	117		111		70-130		5		5	20
trans-1,2-Dichloroethene	110		105		70-130		5		5	20
Trichloroethene	110		106		70-130		4		4	20
1,2-Dichlorobenzene	103		101		70-130		2		2	20
1,3-Dichlorobenzene	105		101		70-130		4		4	20
1,4-Dichlorobenzene	105		101		70-130		4		4	20
Methyl tert butyl ether	102		102		70-130		0		0	20
p/m-Xylene	107		104		70-130		3		3	20
o-Xylene	107		105		70-130		2		2	20
cis-1,2-Dichloroethene	109		105		70-130		4		4	20
Dibromomethane	103		104		70-130		1		1	20
1,2,3-Trichloropropane	97		97		70-130		0		0	20
Styrene	108		107		70-130		1		1	20
Dichlorodifluoromethane	110		106		70-130		4		4	20
Acetone	117		117		70-130		0		0	20
Carbon disulfide	110		105		70-130		5		5	20
Methyl ethyl ketone	92		93		70-130		1		1	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG771465-1 WG771465-2												
Methyl isobutyl ketone	99		104		70-130		5		5			20
2-Hexanone	101		99		70-130		2		2			20
Bromochloromethane	106		103		70-130		3		3			20
Tetrahydrofuran	92		103		70-130		11		11			20
2,2-Dichloropropane	113		109		70-130		4		4			20
1,2-Dibromoethane	98		101		70-130		3		3			20
1,3-Dichloropropane	100		102		70-130		2		2			20
1,1,1,2-Tetrachloroethane	105		104		70-130		1		1			20
Bromobenzene	102		100		70-130		2		2			20
n-Butylbenzene	112		107		70-130		5		5			20
sec-Butylbenzene	111		105		70-130		6		6			20
tert-Butylbenzene	109		104		70-130		5		5			20
o-Chlorotoluene	103		102		70-130		1		1			20
p-Chlorotoluene	106		101		70-130		5		5			20
1,2-Dibromo-3-chloropropane	91		93		70-130		2		2			20
Hexachlorobutadiene	116		109		70-130		6		6			20
Isopropylbenzene	108		103		70-130		5		5			20
p-Isopropyltoluene	111		105		70-130		6		6			20
Naphthalene	97		97		70-130		0		0			20
n-Propylbenzene	108		103		70-130		5		5			20
1,2,3-Trichlorobenzene	102		103		70-130		1		1			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	Qual	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01 Batch: WG771465-1 WG771465-2										
1,2,4-Trichlorobenzene	109		105		70-130		4			20
1,3,5-Trimethylbenzene	107		103		70-130		4			20
1,2,4-Trimethylbenzene	107		103		70-130		4			20
Diethyl ether	102		101		70-130		1			20
Diisopropyl Ether	105		103		70-130		2			20
Ethyl-Tert-Butyl-Ether	105		104		70-130		1			20
Tertiary-Amyl Methyl Ether	103		103		70-130		0			20
1,4-Dioxane	95		99		70-130		4			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	97		100		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	99		97		70-130
Dibromofluoromethane	100		100		70-130



PCBS

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

SAMPLE RESULTS

Lab ID: L1505694-02 D
 Client ID: PC-UV-02/4-5
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8082
 Analytical Date: 03/27/15 22:17
 Analyst: JT
 Percent Solids: 81%

Date Collected: 03/23/15 12:45
 Date Received: 03/24/15
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/26/15 17:00
 Cleanup Method: EPA 3665A
 Cleanup Date: 03/27/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 03/27/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	47400	--	2000	A
Aroclor 1221	ND		ug/kg	47400	--	2000	A
Aroclor 1232	ND		ug/kg	47400	--	2000	A
Aroclor 1242	ND		ug/kg	47400	--	2000	A
Aroclor 1248	ND		ug/kg	31600	--	2000	A
Aroclor 1254	1140000		ug/kg	47400	--	2000	B
Aroclor 1260	ND		ug/kg	31600	--	2000	A
Aroclor 1262	ND		ug/kg	15800	--	2000	A
Aroclor 1268	ND		ug/kg	15800	--	2000	A
PCBs, Total	1140000		ug/kg	15800	--	2000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

SAMPLE RESULTS

Lab ID: L1505694-04
Client ID: PC-UV-05/0-2
Sample Location: NEW BEDFORD, MA
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/27/15 18:59
Analyst: JT
Percent Solids: 87%

Date Collected: 03/23/15 15:40
Date Received: 03/24/15
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/26/15 17:00
Cleanup Method: EPA 3665A
Cleanup Date: 03/27/15
Cleanup Method: EPA 3660B
Cleanup Date: 03/27/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	21.7	--	1	A
Aroclor 1221	ND		ug/kg	21.7	--	1	A
Aroclor 1232	ND		ug/kg	21.7	--	1	A
Aroclor 1242	144		ug/kg	21.7	--	1	A
Aroclor 1248	ND		ug/kg	14.5	--	1	A
Aroclor 1254	646		ug/kg	21.7	--	1	A
Aroclor 1260	80.0		ug/kg	14.5	--	1	A
Aroclor 1262	ND		ug/kg	7.25	--	1	A
Aroclor 1268	ND		ug/kg	7.25	--	1	A
PCBs, Total	870		ug/kg	7.25	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	48		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	53		30-150	B

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

SAMPLE RESULTS

Lab ID: L1505694-05
 Client ID: PC-UV-08/0-2
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8082
 Analytical Date: 03/27/15 19:12
 Analyst: JT
 Percent Solids: 88%

Date Collected: 03/24/15 10:30
 Date Received: 03/24/15
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/26/15 17:00
 Cleanup Method: EPA 3665A
 Cleanup Date: 03/27/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 03/27/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	21.8	--	1	A
Aroclor 1221	ND		ug/kg	21.8	--	1	A
Aroclor 1232	ND		ug/kg	21.8	--	1	A
Aroclor 1242	ND		ug/kg	21.8	--	1	A
Aroclor 1248	ND		ug/kg	14.5	--	1	A
Aroclor 1254	35.7		ug/kg	21.8	--	1	A
Aroclor 1260	ND		ug/kg	14.5	--	1	B
Aroclor 1262	ND		ug/kg	7.26	--	1	A
Aroclor 1268	ND		ug/kg	7.26	--	1	A
PCBs, Total	35.7		ug/kg	7.26	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	48		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	62		30-150	B

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 97,8082
 Analytical Date: 03/27/15 19:25
 Analyst: JT

Extraction Method: EPA 3540C
 Extraction Date: 03/26/15 17:00
 Cleanup Method: EPA 3665A
 Cleanup Date: 03/27/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 03/27/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 02,04-05 Batch: WG771201-1						
Aroclor 1016	ND		ug/kg	19.2	--	A
Aroclor 1221	ND		ug/kg	19.2	--	A
Aroclor 1232	ND		ug/kg	19.2	--	A
Aroclor 1242	ND		ug/kg	19.2	--	A
Aroclor 1248	ND		ug/kg	12.8	--	A
Aroclor 1254	ND		ug/kg	19.2	--	A
Aroclor 1260	ND		ug/kg	12.8	--	A
Aroclor 1262	ND		ug/kg	6.41	--	A
Aroclor 1268	ND		ug/kg	6.41	--	A
PCBs, Total	ND		ug/kg	6.41	--	A

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	43		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	49		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 02,04-05 Batch: WG771201-2 WG771201-3								
Atrodor 1016	80		87		40-140		8	30 A
Atrodor 1260	55		62		40-140		12	30 A

Surrogate	LCS		LCSD		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		81		30-150	A
Decachlorobiphenyl	48		52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		84		30-150	B
Decachlorobiphenyl	54		61		30-150	B



INORGANICS & MISCELLANEOUS

Project Name: AEROVOX-UVOST PRECLEAR**Lab Number:** L1505694**Project Number:** 39744051.40003**Report Date:** 03/30/15**SAMPLE RESULTS**

Lab ID: L1505694-02
Client ID: PC-UV-02/4-5
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 03/23/15 12:45
Date Received: 03/24/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.9		%	0.100	NA	1	-	03/25/15 01:57	30,2540G	RT



Project Name: AEROVOX-UVOST PRECLEAR

Lab Number: L1505694

Project Number: 39744051.40003

Report Date: 03/30/15

SAMPLE RESULTS

Lab ID: L1505694-04
 Client ID: PC-UV-05/0-2
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil

Date Collected: 03/23/15 15:40
 Date Received: 03/24/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.4		%	0.100	NA	1	-	03/25/15 01:57	30,2540G	RT



Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

SAMPLE RESULTS

Lab ID: L1505694-05
Client ID: PC-UV-08/0-2
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 03/24/15 10:30
Date Received: 03/24/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.2		%	0.100	NA	1	-	03/25/15 01:57	30,2540G	RT



Lab Duplicate Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST PRECLEAR

Lab Number: L1505694

Project Number: 39744051.40003

Report Date: 03/30/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02,04-05 QC Batch ID: WG770591-1 QC Sample: L1505617-01 Client ID: DUP Sample						
Solids, Total	87.3	85.1	%	3		20



Project Name: AEROVOX-UVOST PRECLEAR

Lab Number: L1505694

Project Number: 39744051.40003

Report Date: 03/30/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 03/24/2015 15:54

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1505694-01A	Vial MeOH preserved	A	N/A	3.6	Y	Absent	MCP-8260HLW-10(14)
L1505694-01B	Vial water preserved	A	N/A	3.6	Y	Absent	MCP-8260HLW-10(14)
L1505694-02A	Vial MeOH preserved	A	N/A	3.6	Y	Absent	MCP-8260HLW-10(14)
L1505694-02B	Vial water preserved	A	N/A	3.6	Y	Absent	MCP-8260HLW-10(14)
L1505694-02C	Vial water preserved	A	N/A	3.6	Y	Absent	MCP-8260HLW-10(14)
L1505694-02D	Plastic 2oz unpreserved for TS	A	N/A	3.6	Y	Absent	TS(7)
L1505694-02E	Glass 100ml unpreserved	A	N/A	3.6	Y	Absent	MCP-8082LL-10-3540C(365)
L1505694-03A	Vial MeOH preserved	A	N/A	3.6	Y	Absent	HOLD-8260HLW(14)
L1505694-03B	Vial water preserved	A	N/A	3.6	Y	Absent	HOLD-8260HLW(14)
L1505694-03C	Vial water preserved	A	N/A	3.6	Y	Absent	HOLD-8260HLW(14)
L1505694-03D	Plastic 2oz unpreserved for TS	A	N/A	3.6	Y	Absent	HOLD-WETCHEM()
L1505694-03E	Glass 100ml unpreserved	A	N/A	3.6	Y	Absent	HOLD-8082()
L1505694-04A	Glass 100ml unpreserved	A	N/A	3.6	Y	Absent	TS(7),MCP-8082LL-10-3540C(365)
L1505694-05A	Glass 100ml unpreserved	A	N/A	3.6	Y	Absent	TS(7),MCP-8082LL-10-3540C(365)

*Values in parentheses indicate holding time in days



Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report



Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

Data Qualifiers

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

Project Name: AEROVOX-UVOST PRECLEAR
Project Number: 39744051.40003

Lab Number: L1505694
Report Date: 03/30/15

REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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



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

CHAIN OF CUSTODY

PAGE 1 OF 1

Project Name: **Aerovox - West Bedford**

Project Location: **New Bedford, MA**

Project #: **39744051, 40003**

Project Manager: **J. Leclair/M. Wade**

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: **3/21/15**

Additional Project Information:

CVOC ONLY

Serial No: 03301516-16

ALPHA Job #: **1505694**

Date Rec'd in Lab: **3/24/15**

Report Information - Data Deliverables

ADEX EMAIL

Billing Information

Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods

Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)

Yes No GW1 Standards (Info Required for Metals & EPH with Targets)

Yes No NPDES RGP

Other State/Fed Program

Criteria

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	ANALYSIS	TOTAL # BOTTLES
05694 -01	TRIP BLANK	3/22/15	1200	TB	JKH	2	2
-02	PC-UV-02/4-5	1245		S	JKH	3	5
-03	PC-UV-02/3-4	1250		S	JKH	3	5
-04	PC-UV-05/0-2	1540		S	JKH	1	1
-05	PC-UV-08/0-2	3/24/15	1030	S	JKH	1	1

Sample Comments	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	SVOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 (High/Low)
RUN PIP 2						
RUN 11.5	1					
HOLD 10.6	1					
RUN 0.0						
RUN 1.0						

Container Type: **V**

Preservative: **F/O**

Relinquished By: *[Signature]*

Date/Time: **3/24/15 1330**

Received By: *[Signature]*

Date/Time: **3/24/15 1330**

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

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

- Container Type**
- P= Plastic
 - A= Amber glass
 - V= Vial
 - G= Glass
 - B= Bacteria cup
 - C= Cube
 - O= Other
 - E= Encore
 - D= BOD Bottle
- Preservative**
- A= None
 - B= HCl
 - C= HNO₃
 - D= H₂SO₄
 - E= NaOH
 - F= MeOH
 - G= NaHSO₄
 - H= Na₂S₂O₃
 - I= Ascorbic Acid
 - J= NH₄Cl
 - K= Zn Acetate
 - O= Other



ANALYTICAL REPORT

Lab Number:	L1506417
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX-UVOST
Project Number:	39744051.40003
Report Date:	04/08/15

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1506417-01	TRIP BLANK	SOIL	NEW BEDFORD, MA	04/01/15 14:00	04/01/15
L1506417-02	UV-17/5-6	SOIL	NEW BEDFORD, MA	04/01/15 14:30	04/01/15
L1506417-03	UV-17/6-7	SOIL	NEW BEDFORD, MA	04/01/15 14:35	04/01/15
L1506417-04	UV-17/7-8	SOIL	NEW BEDFORD, MA	04/01/15 14:40	04/01/15
L1506417-05	UV-17/8-9	SOIL	NEW BEDFORD, MA	04/01/15 14:45	04/01/15
L1506417-06	UV-17/9-10	SOIL	NEW BEDFORD, MA	04/01/15 14:50	04/01/15



Project Name: AEROVOX-UVOST

Lab Number: L1506417

Project Number: 39744051.40003

Report Date: 04/08/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

L1506417-02, -04, and -06 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

L1506417-03 and -05 were re-analyzed on dilution in order to quantify the samples within the calibration range. The results should be considered estimated, and are qualified with an E flag, for any compounds that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compounds that exceeded the calibration range.

In reference to question G:

L1506417-01 through -06: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration verification, associated with L1506417-01 through -06, is outside acceptance criteria for dichlorodifluoromethane (163%); however, the associated samples are non-detect for this compound.

The continuing calibration standard, associated with L1506417-01 through -06, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question I:

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

PCBs

In reference to question G:

L1506417-02 through -06: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

L1506417-02 through -06: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilutions required to quantitate the samples. Re-extraction was not required; therefore, the results of the original analyses are reported.

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

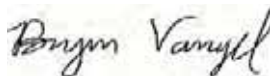
Lab Number: L1506417
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Case Narrative (continued)

The surrogate recovery for the WG772935-1 Method Blank is outside the individual acceptance criteria for decachlorobiphenyl (29%), but within the overall method allowances. The results of the original analysis are reported; however, all associated compounds are considered to have a potential bias.

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

Authorized Signature:

 Bryan Vangel

Title: Technical Director/Representative

Date: 04/08/15

ORGANICS

VOLATILES

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-01
 Client ID: TRIP BLANK
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/05/15 14:49
 Analyst: BN
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/01/15 14:00
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	500	--	1
1,1-Dichloroethane	ND		ug/kg	75	--	1
Chloroform	ND		ug/kg	75	--	1
Carbon tetrachloride	ND		ug/kg	50	--	1
1,2-Dichloropropane	ND		ug/kg	180	--	1
Dibromochloromethane	ND		ug/kg	50	--	1
1,1,2-Trichloroethane	ND		ug/kg	75	--	1
Tetrachloroethene	ND		ug/kg	50	--	1
Chlorobenzene	ND		ug/kg	50	--	1
1,2-Dichloroethane	ND		ug/kg	50	--	1
1,1,1-Trichloroethane	ND		ug/kg	50	--	1
Bromodichloromethane	ND		ug/kg	50	--	1
trans-1,3-Dichloropropene	ND		ug/kg	50	--	1
cis-1,3-Dichloropropene	ND		ug/kg	50	--	1
1,3-Dichloropropene, Total	ND		ug/kg	50	--	1
Bromoform	ND		ug/kg	200	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--	1
Chloromethane	ND		ug/kg	200	--	1
Vinyl chloride	ND		ug/kg	100	--	1
Chloroethane	ND		ug/kg	100	--	1
1,1-Dichloroethene	ND		ug/kg	50	--	1
trans-1,2-Dichloroethene	ND		ug/kg	75	--	1
Trichloroethene	ND		ug/kg	50	--	1
1,2-Dichlorobenzene	ND		ug/kg	200	--	1
1,3-Dichlorobenzene	ND		ug/kg	200	--	1
1,4-Dichlorobenzene	ND		ug/kg	200	--	1
cis-1,2-Dichloroethene	ND		ug/kg	50	--	1
1,2-Dichloroethene, Total	ND		ug/kg	50	--	1
Dichlorodifluoromethane	ND		ug/kg	500	--	1
1,2-Dibromoethane	ND		ug/kg	200	--	1

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-01
 Client ID: TRIP BLANK
 Sample Location: NEW BEDFORD, MA

Date Collected: 04/01/15 14:00
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichloropropane	ND		ug/kg	200	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--	1
o-Chlorotoluene	ND		ug/kg	200	--	1
p-Chlorotoluene	ND		ug/kg	200	--	1
Hexachlorobutadiene	ND		ug/kg	200	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	99		70-130

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-02 D
 Client ID: UV-17/5-6
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/05/15 15:16
 Analyst: BN
 Percent Solids: 38%

Date Collected: 04/01/15 14:30
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	23000	--	10
1,1-Dichloroethane	ND		ug/kg	3400	--	10
Chloroform	ND		ug/kg	3400	--	10
Carbon tetrachloride	ND		ug/kg	2300	--	10
1,2-Dichloropropane	ND		ug/kg	8100	--	10
Dibromochloromethane	ND		ug/kg	2300	--	10
1,1,2-Trichloroethane	ND		ug/kg	3400	--	10
Tetrachloroethene	ND		ug/kg	2300	--	10
Chlorobenzene	4200		ug/kg	2300	--	10
1,2-Dichloroethane	ND		ug/kg	2300	--	10
1,1,1-Trichloroethane	ND		ug/kg	2300	--	10
Bromodichloromethane	ND		ug/kg	2300	--	10
trans-1,3-Dichloropropene	ND		ug/kg	2300	--	10
cis-1,3-Dichloropropene	ND		ug/kg	2300	--	10
1,3-Dichloropropene, Total	ND		ug/kg	2300	--	10
Bromoform	ND		ug/kg	9200	--	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	2300	--	10
Chloromethane	ND		ug/kg	9200	--	10
Vinyl chloride	210000		ug/kg	4600	--	10
Chloroethane	ND		ug/kg	4600	--	10
1,1-Dichloroethene	ND		ug/kg	2300	--	10
trans-1,2-Dichloroethene	5100		ug/kg	3400	--	10
Trichloroethene	ND		ug/kg	2300	--	10
1,2-Dichlorobenzene	ND		ug/kg	9200	--	10
1,3-Dichlorobenzene	12000		ug/kg	9200	--	10
1,4-Dichlorobenzene	79000		ug/kg	9200	--	10
cis-1,2-Dichloroethene	560000		ug/kg	2300	--	10
1,2-Dichloroethene, Total	570000		ug/kg	2300	--	10
Dichlorodifluoromethane	ND		ug/kg	23000	--	10
1,2-Dibromoethane	ND		ug/kg	9200	--	10



Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-02 D
 Client ID: UV-17/5-6
 Sample Location: NEW BEDFORD, MA

Date Collected: 04/01/15 14:30
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichloropropane	ND		ug/kg	9200	--	10
1,1,1,2-Tetrachloroethane	ND		ug/kg	2300	--	10
o-Chlorotoluene	ND		ug/kg	9200	--	10
p-Chlorotoluene	ND		ug/kg	9200	--	10
Hexachlorobutadiene	ND		ug/kg	9200	--	10
1,2,4-Trichlorobenzene	50000		ug/kg	9200	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-03 D2
 Client ID: UV-17/6-7
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/06/15 13:31
 Analyst: BN
 Percent Solids: 55%

Date Collected: 04/01/15 14:35
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Trichloroethene	4200000		ug/kg	15000	--	100
cis-1,2-Dichloroethene	2200000		ug/kg	15000	--	100
1,2-Dichloroethene, Total	2200000		ug/kg	2200	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	98		70-130

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-03 D
 Client ID: UV-17/6-7
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/05/15 15:42
 Analyst: BN
 Percent Solids: 55%

Date Collected: 04/01/15 14:35
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	15000	--	10
1,1-Dichloroethane	ND		ug/kg	2200	--	10
Chloroform	ND		ug/kg	2200	--	10
Carbon tetrachloride	ND		ug/kg	1500	--	10
1,2-Dichloropropane	ND		ug/kg	5200	--	10
Dibromochloromethane	ND		ug/kg	1500	--	10
1,1,2-Trichloroethane	ND		ug/kg	2200	--	10
Tetrachloroethene	8600		ug/kg	1500	--	10
Chlorobenzene	ND		ug/kg	1500	--	10
1,2-Dichloroethane	ND		ug/kg	1500	--	10
1,1,1-Trichloroethane	ND		ug/kg	1500	--	10
Bromodichloromethane	ND		ug/kg	1500	--	10
trans-1,3-Dichloropropene	ND		ug/kg	1500	--	10
cis-1,3-Dichloropropene	ND		ug/kg	1500	--	10
1,3-Dichloropropene, Total	ND		ug/kg	1500	--	10
Bromoform	ND		ug/kg	6000	--	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	1500	--	10
Chloromethane	ND		ug/kg	6000	--	10
Vinyl chloride	160000		ug/kg	3000	--	10
Chloroethane	ND		ug/kg	3000	--	10
1,1-Dichloroethene	ND		ug/kg	1500	--	10
trans-1,2-Dichloroethene	6900		ug/kg	2200	--	10
Trichloroethene	4900000	E	ug/kg	1500	--	10
1,2-Dichlorobenzene	ND		ug/kg	6000	--	10
1,3-Dichlorobenzene	ND		ug/kg	6000	--	10
1,4-Dichlorobenzene	ND		ug/kg	6000	--	10
cis-1,2-Dichloroethene	1800000	E	ug/kg	1500	--	10
Dichlorodifluoromethane	ND		ug/kg	15000	--	10
1,2-Dibromoethane	ND		ug/kg	6000	--	10
1,3-Dichloropropane	ND		ug/kg	6000	--	10



Project Name: AEROVOX-UVOST

Lab Number: L1506417

Project Number: 39744051.40003

Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-03 D

Date Collected: 04/01/15 14:35

Client ID: UV-17/6-7

Date Received: 04/01/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,1,1,2-Tetrachloroethane	ND		ug/kg	1500	--	10
o-Chlorotoluene	ND		ug/kg	6000	--	10
p-Chlorotoluene	ND		ug/kg	6000	--	10
Hexachlorobutadiene	ND		ug/kg	6000	--	10
1,2,4-Trichlorobenzene	87000		ug/kg	6000	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-04 D
 Client ID: UV-17/7-8
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/05/15 16:09
 Analyst: BN
 Percent Solids: 61%

Date Collected: 04/01/15 14:40
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	170000	--	100
1,1-Dichloroethane	ND		ug/kg	26000	--	100
Chloroform	ND		ug/kg	26000	--	100
Carbon tetrachloride	ND		ug/kg	17000	--	100
1,2-Dichloropropane	ND		ug/kg	60000	--	100
Dibromochloromethane	ND		ug/kg	17000	--	100
1,1,2-Trichloroethane	ND		ug/kg	26000	--	100
Tetrachloroethene	ND		ug/kg	17000	--	100
Chlorobenzene	ND		ug/kg	17000	--	100
1,2-Dichloroethane	ND		ug/kg	17000	--	100
1,1,1-Trichloroethane	ND		ug/kg	17000	--	100
Bromodichloromethane	ND		ug/kg	17000	--	100
trans-1,3-Dichloropropene	ND		ug/kg	17000	--	100
cis-1,3-Dichloropropene	ND		ug/kg	17000	--	100
1,3-Dichloropropene, Total	ND		ug/kg	17000	--	100
Bromoform	ND		ug/kg	68000	--	100
1,1,2,2-Tetrachloroethane	ND		ug/kg	17000	--	100
Chloromethane	ND		ug/kg	68000	--	100
Vinyl chloride	180000		ug/kg	34000	--	100
Chloroethane	ND		ug/kg	34000	--	100
1,1-Dichloroethene	ND		ug/kg	17000	--	100
trans-1,2-Dichloroethene	ND		ug/kg	26000	--	100
Trichloroethene	4000000		ug/kg	17000	--	100
1,2-Dichlorobenzene	ND		ug/kg	68000	--	100
1,3-Dichlorobenzene	ND		ug/kg	68000	--	100
1,4-Dichlorobenzene	ND		ug/kg	68000	--	100
cis-1,2-Dichloroethene	1600000		ug/kg	17000	--	100
1,2-Dichloroethene, Total	1600000		ug/kg	17000	--	100
Dichlorodifluoromethane	ND		ug/kg	170000	--	100
1,2-Dibromoethane	ND		ug/kg	68000	--	100



Project Name: AEROVOX-UVOST**Lab Number:** L1506417**Project Number:** 39744051.40003**Report Date:** 04/08/15**SAMPLE RESULTS**

Lab ID: L1506417-04 D

Date Collected: 04/01/15 14:40

Client ID: UV-17/7-8

Date Received: 04/01/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichloropropane	ND		ug/kg	68000	--	100
1,1,1,2-Tetrachloroethane	ND		ug/kg	17000	--	100
o-Chlorotoluene	ND		ug/kg	68000	--	100
p-Chlorotoluene	ND		ug/kg	68000	--	100
Hexachlorobutadiene	ND		ug/kg	68000	--	100
1,2,4-Trichlorobenzene	78000		ug/kg	68000	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-05 D2
 Client ID: UV-17/8-9
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/06/15 13:58
 Analyst: BN
 Percent Solids: 39%

Date Collected: 04/01/15 14:45
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics by 8260/5035 - Westborough Lab

Trichloroethene	14000000		ug/kg	110000	--	500
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	97		70-130

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-05 D
 Client ID: UV-17/8-9
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/05/15 16:35
 Analyst: BN
 Percent Solids: 39%

Date Collected: 04/01/15 14:45
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	230000	--	100
1,1-Dichloroethane	ND		ug/kg	34000	--	100
Chloroform	ND		ug/kg	34000	--	100
Carbon tetrachloride	ND		ug/kg	23000	--	100
1,2-Dichloropropane	ND		ug/kg	80000	--	100
Dibromochloromethane	ND		ug/kg	23000	--	100
1,1,2-Trichloroethane	ND		ug/kg	34000	--	100
Tetrachloroethene	35000		ug/kg	23000	--	100
Chlorobenzene	ND		ug/kg	23000	--	100
1,2-Dichloroethane	ND		ug/kg	23000	--	100
1,1,1-Trichloroethane	ND		ug/kg	23000	--	100
Bromodichloromethane	ND		ug/kg	23000	--	100
trans-1,3-Dichloropropene	ND		ug/kg	23000	--	100
cis-1,3-Dichloropropene	ND		ug/kg	23000	--	100
1,3-Dichloropropene, Total	ND		ug/kg	23000	--	100
Bromoform	ND		ug/kg	91000	--	100
1,1,2,2-Tetrachloroethane	ND		ug/kg	23000	--	100
Chloromethane	ND		ug/kg	91000	--	100
Vinyl chloride	240000		ug/kg	46000	--	100
Chloroethane	ND		ug/kg	46000	--	100
1,1-Dichloroethene	ND		ug/kg	23000	--	100
trans-1,2-Dichloroethene	ND		ug/kg	34000	--	100
Trichloroethene	19000000	E	ug/kg	23000	--	100
1,2-Dichlorobenzene	ND		ug/kg	91000	--	100
1,3-Dichlorobenzene	ND		ug/kg	91000	--	100
1,4-Dichlorobenzene	ND		ug/kg	91000	--	100
cis-1,2-Dichloroethene	2800000		ug/kg	23000	--	100
1,2-Dichloroethene, Total	2800000		ug/kg	23000	--	100
Dichlorodifluoromethane	ND		ug/kg	230000	--	100
1,2-Dibromoethane	ND		ug/kg	91000	--	100



Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-05 D
 Client ID: UV-17/8-9
 Sample Location: NEW BEDFORD, MA

Date Collected: 04/01/15 14:45
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichloropropane	ND		ug/kg	91000	--	100
1,1,1,2-Tetrachloroethane	ND		ug/kg	23000	--	100
o-Chlorotoluene	ND		ug/kg	91000	--	100
p-Chlorotoluene	ND		ug/kg	91000	--	100
Hexachlorobutadiene	ND		ug/kg	91000	--	100
1,2,4-Trichlorobenzene	610000		ug/kg	91000	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	101		70-130

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-06 D
 Client ID: UV-17/9-10
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/05/15 17:02
 Analyst: BN
 Percent Solids: 18%

Date Collected: 04/01/15 14:50
 Date Received: 04/01/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	580000	--	100
1,1-Dichloroethane	ND		ug/kg	87000	--	100
Chloroform	ND		ug/kg	87000	--	100
Carbon tetrachloride	ND		ug/kg	58000	--	100
1,2-Dichloropropane	ND		ug/kg	200000	--	100
Dibromochloromethane	ND		ug/kg	58000	--	100
1,1,2-Trichloroethane	ND		ug/kg	87000	--	100
Tetrachloroethene	ND		ug/kg	58000	--	100
Chlorobenzene	ND		ug/kg	58000	--	100
1,2-Dichloroethane	ND		ug/kg	58000	--	100
1,1,1-Trichloroethane	ND		ug/kg	58000	--	100
Bromodichloromethane	ND		ug/kg	58000	--	100
trans-1,3-Dichloropropene	ND		ug/kg	58000	--	100
cis-1,3-Dichloropropene	ND		ug/kg	58000	--	100
1,3-Dichloropropene, Total	ND		ug/kg	58000	--	100
Bromoform	ND		ug/kg	230000	--	100
1,1,2,2-Tetrachloroethane	ND		ug/kg	58000	--	100
Chloromethane	ND		ug/kg	230000	--	100
Vinyl chloride	310000		ug/kg	120000	--	100
Chloroethane	ND		ug/kg	120000	--	100
1,1-Dichloroethene	ND		ug/kg	58000	--	100
trans-1,2-Dichloroethene	ND		ug/kg	87000	--	100
Trichloroethene	4700000		ug/kg	58000	--	100
1,2-Dichlorobenzene	ND		ug/kg	230000	--	100
1,3-Dichlorobenzene	ND		ug/kg	230000	--	100
1,4-Dichlorobenzene	ND		ug/kg	230000	--	100
cis-1,2-Dichloroethene	5300000		ug/kg	58000	--	100
1,2-Dichloroethene, Total	5300000		ug/kg	58000	--	100
Dichlorodifluoromethane	ND		ug/kg	580000	--	100
1,2-Dibromoethane	ND		ug/kg	230000	--	100



Project Name: AEROVOX-UVOST**Lab Number:** L1506417**Project Number:** 39744051.40003**Report Date:** 04/08/15**SAMPLE RESULTS**

Lab ID: L1506417-06 D

Date Collected: 04/01/15 14:50

Client ID: UV-17/9-10

Date Received: 04/01/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
1,3-Dichloropropane	ND		ug/kg	230000	--	100
1,1,1,2-Tetrachloroethane	ND		ug/kg	58000	--	100
o-Chlorotoluene	ND		ug/kg	230000	--	100
p-Chlorotoluene	ND		ug/kg	230000	--	100
Hexachlorobutadiene	ND		ug/kg	230000	--	100
1,2,4-Trichlorobenzene	ND		ug/kg	230000	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	101		70-130

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/05/15 13:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 5035 High - Westborough Lab for sample(s): 01-06 Batch: WG773673-3					
Methylene chloride	ND		ug/kg	500	--
1,1-Dichloroethane	ND		ug/kg	75	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	180	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	75	--
Tetrachloroethene	ND		ug/kg	50	--
Chlorobenzene	ND		ug/kg	50	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	50	--
Bromodichloromethane	ND		ug/kg	50	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	50	--
1,3-Dichloropropene, Total	ND		ug/kg	50	--
1,1-Dichloropropene	ND		ug/kg	200	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--
Benzene	ND		ug/kg	50	--
Toluene	ND		ug/kg	75	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	100	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	50	--

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 04/05/15 13:03
 Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 5035 High - Westborough Lab for sample(s): 01-06 Batch: WG773673-3					
1,2-Dichlorobenzene	ND		ug/kg	200	--
1,3-Dichlorobenzene	ND		ug/kg	200	--
1,4-Dichlorobenzene	ND		ug/kg	200	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
Xylenes, Total	ND		ug/kg	100	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	200	--
1,2,3-Trichloropropane	ND		ug/kg	200	--
Styrene	ND		ug/kg	100	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	1800	--
Carbon disulfide	ND		ug/kg	200	--
Methyl ethyl ketone	ND		ug/kg	500	--
Methyl isobutyl ketone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	200	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	250	--
1,2-Dibromoethane	ND		ug/kg	200	--
1,3-Dichloropropane	ND		ug/kg	200	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--
Bromobenzene	ND		ug/kg	250	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	200	--
o-Chlorotoluene	ND		ug/kg	200	--

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/05/15 13:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 5035 High - Westborough Lab for sample(s): 01-06 Batch: WG773673-3					
p-Chlorotoluene	ND		ug/kg	200	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	200	--
1,2,4-Trichlorobenzene	ND		ug/kg	200	--
1,3,5-Trimethylbenzene	ND		ug/kg	200	--
1,2,4-Trimethylbenzene	ND		ug/kg	200	--
Diethyl ether	ND		ug/kg	250	--
Diisopropyl Ether	ND		ug/kg	200	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	--
1,4-Dioxane	ND		ug/kg	5000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/06/15 11:45
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 03,05 Batch: WG773673-6					
Methylene chloride	ND		ug/kg	500	--
1,1-Dichloroethane	ND		ug/kg	75	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	180	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	75	--
Tetrachloroethene	ND		ug/kg	50	--
Chlorobenzene	ND		ug/kg	50	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	50	--
Bromodichloromethane	ND		ug/kg	50	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	50	--
1,3-Dichloropropene, Total	ND		ug/kg	50	--
1,1-Dichloropropene	ND		ug/kg	200	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--
Benzene	ND		ug/kg	50	--
Toluene	ND		ug/kg	75	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	100	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	50	--

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/06/15 11:45
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 03,05 Batch: WG773673-6					
1,2-Dichlorobenzene	ND		ug/kg	200	--
1,3-Dichlorobenzene	ND		ug/kg	200	--
1,4-Dichlorobenzene	ND		ug/kg	200	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
Xylenes, Total	ND		ug/kg	100	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	200	--
1,2,3-Trichloropropane	ND		ug/kg	200	--
Styrene	ND		ug/kg	100	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	1800	--
Carbon disulfide	ND		ug/kg	200	--
Methyl ethyl ketone	ND		ug/kg	500	--
Methyl isobutyl ketone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	200	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	250	--
1,2-Dibromoethane	ND		ug/kg	200	--
1,3-Dichloropropane	ND		ug/kg	200	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--
Bromobenzene	ND		ug/kg	250	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	200	--
o-Chlorotoluene	ND		ug/kg	200	--



Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/06/15 11:45
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 03,05 Batch: WG773673-6					
p-Chlorotoluene	ND		ug/kg	200	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	200	--
1,2,4-Trichlorobenzene	ND		ug/kg	200	--
1,3,5-Trimethylbenzene	ND		ug/kg	200	--
1,2,4-Trimethylbenzene	ND		ug/kg	200	--
Diethyl ether	ND		ug/kg	250	--
Diisopropyl Ether	ND		ug/kg	200	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	--
1,4-Dioxane	ND		ug/kg	5000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 01-06 Batch: WG773673-1 WG773673-2								
Methylene chloride	93		98		70-130		5	20
1,1-Dichloroethane	100		102		70-130		2	20
Chloroform	95		100		70-130		5	20
Carbon tetrachloride	92		95		70-130		3	20
1,2-Dichloropropane	97		103		70-130		6	20
Dibromochloromethane	93		98		70-130		5	20
1,1,2-Trichloroethane	104		110		70-130		6	20
Tetrachloroethene	92		93		70-130		1	20
Chlorobenzene	96		100		70-130		4	20
Trichlorofluoromethane	104		107		70-130		3	20
1,2-Dichloroethane	100		105		70-130		5	20
1,1,1-Trichloroethane	96		98		70-130		2	20
Bromodichloromethane	92		98		70-130		6	20
trans-1,3-Dichloropropene	101		109		70-130		8	20
cis-1,3-Dichloropropene	93		98		70-130		5	20
1,1-Dichloropropene	97		99		70-130		2	20
Bromoform	91		93		70-130		2	20
1,1,2,2-Tetrachloroethane	103		107		70-130		4	20
Benzene	96		99		70-130		3	20
Toluene	100		103		70-130		3	20
Ethylbenzene	99		103		70-130		4	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 01-06 Batch: WG773673-1 WG773673-2												
Chloromethane	109		114		70-130		4		4		20	
Bromomethane	111		116		70-130		4		4		20	
Vinyl chloride	120		124		70-130		3		3		20	
Chloroethane	117		122		70-130		4		4		20	
1,1-Dichloroethene	93		97		70-130		4		4		20	
trans-1,2-Dichloroethene	92		96		70-130		4		4		20	
Trichloroethene	95		96		70-130		1		1		20	
1,2-Dichlorobenzene	94		99		70-130		5		5		20	
1,3-Dichlorobenzene	98		101		70-130		3		3		20	
1,4-Dichlorobenzene	96		100		70-130		4		4		20	
Methyl tert butyl ether	89		96		70-130		8		8		20	
p/m-Xylene	97		102		70-130		5		5		20	
o-Xylene	96		99		70-130		3		3		20	
cis-1,2-Dichloroethene	92		95		70-130		3		3		20	
Dibromomethane	93		100		70-130		7		7		20	
1,2,3-Trichloropropane	103		108		70-130		5		5		20	
Styrene	97		101		70-130		4		4		20	
Dichlorodifluoromethane	114		118		70-130		3		3		20	
Acetone	113		114		70-130		1		1		20	
Carbon disulfide	103		106		70-130		3		3		20	
Methyl ethyl ketone	105		99		70-130		6		6		20	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 01-06 Batch: WG773673-1 WG773673-2										
Methyl isobutyl ketone	79		86		70-130		8			20
2-Hexanone	93		100		70-130		7			20
Bromochloromethane	91		95		70-130		4			20
Tetrahydrofuran	106		111		70-130		5			20
2,2-Dichloropropane	102		105		70-130		3			20
1,2-Dibromoethane	95		102		70-130		7			20
1,3-Dichloropropane	102		109		70-130		7			20
1,1,1,2-Tetrachloroethane	95		101		70-130		6			20
Bromobenzene	91		94		70-130		3			20
n-Butylbenzene	111		111		70-130		0			20
sec-Butylbenzene	102		102		70-130		0			20
tert-Butylbenzene	96		98		70-130		2			20
o-Chlorotoluene	102		105		70-130		3			20
p-Chlorotoluene	103		106		70-130		3			20
1,2-Dibromo-3-chloropropane	84		84		70-130		0			20
Hexachlorobutadiene	83		83		70-130		0			20
Isopropylbenzene	96		99		70-130		3			20
p-Isopropyltoluene	98		99		70-130		1			20
Naphthalene	87		91		70-130		4			20
n-Propylbenzene	102		105		70-130		3			20
1,2,3-Trichlorobenzene	86		90		70-130		5			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Qual
MCP Volatile Organics by 5035 High - Westborough Lab Associated sample(s): 01-06 Batch: WG773673-1 WG773673-2								
1,2,4-Trichlorobenzene	87		89		70-130		2	20
1,3,5-Trimethylbenzene	102		105		70-130		3	20
1,2,4-Trimethylbenzene	100		103		70-130		3	20
Diethyl ether	142	Q	149	Q	70-130		5	20
Diisopropyl Ether	95		101		70-130		6	20
Ethyl-Tert-Butyl-Ether	90		96		70-130		6	20
Tertiary-Amyl Methyl Ether	87		92		70-130		6	20
1,4-Dioxane	83		88		70-130		6	20

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	Criteria
1,2-Dichloroethane-d4	113		113		70-130	70-130
Toluene-d8	107		107		70-130	70-130
4-Bromofluorobenzene	103		102		70-130	70-130
Dibromofluoromethane	97		97		70-130	70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03,05 Batch: WG773673-4 WG773673-5										
Methylene chloride	94		95		70-130		1			20
1,1-Dichloroethane	99		96		70-130		3			20
Chloroform	96		93		70-130		3			20
Carbon tetrachloride	96		93		70-130		3			20
1,2-Dichloropropane	99		96		70-130		3			20
Dibromochloromethane	96		95		70-130		1			20
1,1,2-Trichloroethane	102		101		70-130		1			20
Tetrachloroethene	94		93		70-130		1			20
Chlorobenzene	98		96		70-130		2			20
Trichlorofluoromethane	100		99		70-130		1			20
1,2-Dichloroethane	100		98		70-130		2			20
1,1,1-Trichloroethane	97		96		70-130		1			20
Bromodichloromethane	95		92		70-130		3			20
trans-1,3-Dichloropropene	102		101		70-130		1			20
cis-1,3-Dichloropropene	95		94		70-130		1			20
1,1-Dichloropropene	99		98		70-130		1			20
Bromoform	92		92		70-130		0			20
1,1,2,2-Tetrachloroethane	100		100		70-130		0			20
Benzene	97		95		70-130		2			20
Toluene	101		101		70-130		0			20
Ethylbenzene	100		98		70-130		2			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03,05 Batch: WG773673-4 WG773673-5												
Chloromethane	106		102		70-130		4		4			20
Bromomethane	107		105		70-130		2		2			20
Vinyl chloride	114		112		70-130		2		2			20
Chloroethane	107		106		70-130		1		1			20
1,1-Dichloroethene	98		95		70-130		3		3			20
trans-1,2-Dichloroethene	95		94		70-130		1		1			20
Trichloroethene	96		94		70-130		2		2			20
1,2-Dichlorobenzene	97		95		70-130		2		2			20
1,3-Dichlorobenzene	100		97		70-130		3		3			20
1,4-Dichlorobenzene	97		96		70-130		1		1			20
Methyl tert butyl ether	94		93		70-130		1		1			20
p/m-Xylene	100		98		70-130		2		2			20
o-Xylene	98		96		70-130		2		2			20
cis-1,2-Dichloroethene	94		92		70-130		2		2			20
Dibromomethane	95		94		70-130		1		1			20
1,2,3-Trichloropropane	102		104		70-130		2		2			20
Styrene	96		95		70-130		1		1			20
Dichlorodifluoromethane	116		113		70-130		3		3			20
Acetone	98		92		70-130		6		6			20
Carbon disulfide	102		99		70-130		3		3			20
Methyl ethyl ketone	95		94		70-130		1		1			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03,05 Batch: WG773673-4 WG773673-5										
Methyl isobutyl ketone	90		88		70-130		2		2	20
2-Hexanone	97		96		70-130		1		1	20
Bromochloromethane	94		92		70-130		2		2	20
Tetrahydrofuran	99		104		70-130		5		5	20
2,2-Dichloropropane	103		101		70-130		2		2	20
1,2-Dibromoethane	99		99		70-130		0		0	20
1,3-Dichloropropane	102		100		70-130		2		2	20
1,1,1,2-Tetrachloroethane	97		95		70-130		2		2	20
Bromobenzene	94		93		70-130		1		1	20
n-Butylbenzene	110		106		70-130		4		4	20
sec-Butylbenzene	103		99		70-130		4		4	20
tert-Butylbenzene	100		98		70-130		2		2	20
o-Chlorotoluene	103		101		70-130		2		2	20
p-Chlorotoluene	104		102		70-130		2		2	20
1,2-Dibromo-3-chloropropane	85		87		70-130		2		2	20
Hexachlorobutadiene	88		85		70-130		3		3	20
Isopropylbenzene	99		97		70-130		2		2	20
p-Isopropyltoluene	101		98		70-130		3		3	20
Naphthalene	91		91		70-130		0		0	20
n-Propylbenzene	103		101		70-130		2		2	20
1,2,3-Trichlorobenzene	90		87		70-130		3		3	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 03,05 Batch: WG773673-4 WG773673-5										
1,2,4-Trichlorobenzene	90		88		70-130		2			20
1,3,5-Trimethylbenzene	104		101		70-130		3			20
1,2,4-Trimethylbenzene	101		99		70-130		2			20
Diethyl ether	140	Q	137	Q	70-130		2			20
Diisopropyl Ether	97		94		70-130		3			20
Ethyl-Tert-Butyl-Ether	94		93		70-130		1			20
Tertiary-Amyl Methyl Ether	93		91		70-130		2			20
1,4-Dioxane	86		85		70-130		1			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	106		106		70-130
Toluene-d8	105		105		70-130
4-Bromofluorobenzene	104		103		70-130
Dibromofluoromethane	96		95		70-130



PCBS

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-02 D
 Client ID: UV-17/5-6
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8082
 Analytical Date: 04/08/15 06:34
 Analyst: JW
 Percent Solids: 38%

Date Collected: 04/01/15 14:30
 Date Received: 04/01/15
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/02/15 11:25
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/03/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/03/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	51900	--	1000	A
Aroclor 1221	ND		ug/kg	51900	--	1000	A
Aroclor 1232	ND		ug/kg	51900	--	1000	A
Aroclor 1242	887000		ug/kg	51900	--	1000	B
Aroclor 1248	ND		ug/kg	34600	--	1000	A
Aroclor 1254	1350000		ug/kg	51900	--	1000	B
Aroclor 1260	ND		ug/kg	34600	--	1000	A
Aroclor 1262	ND		ug/kg	17300	--	1000	A
Aroclor 1268	ND		ug/kg	17300	--	1000	A
PCBs, Total	2240000		ug/kg	17300	--	1000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-03 D
Client ID: UV-17/6-7
Sample Location: NEW BEDFORD, MA
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 04/08/15 06:51
Analyst: JW
Percent Solids: 55%

Date Collected: 04/01/15 14:35
Date Received: 04/01/15
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/02/15 11:25
Cleanup Method: EPA 3665A
Cleanup Date: 04/03/15
Cleanup Method: EPA 3660B
Cleanup Date: 04/03/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	71500	--	2000	A
Aroclor 1221	ND		ug/kg	71500	--	2000	A
Aroclor 1232	ND		ug/kg	71500	--	2000	A
Aroclor 1242	1250000		ug/kg	71500	--	2000	B
Aroclor 1248	ND		ug/kg	47600	--	2000	A
Aroclor 1254	1570000		ug/kg	71500	--	2000	B
Aroclor 1260	ND		ug/kg	47600	--	2000	A
Aroclor 1262	ND		ug/kg	23800	--	2000	A
Aroclor 1268	ND		ug/kg	23800	--	2000	A
PCBs, Total	2820000		ug/kg	23800	--	2000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-04 D
 Client ID: UV-17/7-8
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8082
 Analytical Date: 04/08/15 09:55
 Analyst: JW
 Percent Solids: 61%

Date Collected: 04/01/15 14:40
 Date Received: 04/01/15
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/02/15 11:25
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/03/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/03/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	128000	--	4000	A
Aroclor 1221	ND		ug/kg	128000	--	4000	A
Aroclor 1232	ND		ug/kg	128000	--	4000	A
Aroclor 1242	2140000		ug/kg	128000	--	4000	B
Aroclor 1248	ND		ug/kg	85400	--	4000	A
Aroclor 1254	2990000		ug/kg	128000	--	4000	B
Aroclor 1260	ND		ug/kg	85400	--	4000	A
Aroclor 1262	ND		ug/kg	42700	--	4000	A
Aroclor 1268	ND		ug/kg	42700	--	4000	A
PCBs, Total	5130000		ug/kg	42700	--	4000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-05 D
 Client ID: UV-17/8-9
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8082
 Analytical Date: 04/08/15 07:24
 Analyst: JW
 Percent Solids: 39%

Date Collected: 04/01/15 14:45
 Date Received: 04/01/15
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/02/15 11:25
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/03/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/03/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	99800	--	2000	A
Aroclor 1221	ND		ug/kg	99800	--	2000	A
Aroclor 1232	ND		ug/kg	99800	--	2000	A
Aroclor 1242	1780000		ug/kg	99800	--	2000	B
Aroclor 1248	ND		ug/kg	66600	--	2000	A
Aroclor 1254	2540000		ug/kg	99800	--	2000	B
Aroclor 1260	ND		ug/kg	66600	--	2000	A
Aroclor 1262	ND		ug/kg	33300	--	2000	A
Aroclor 1268	ND		ug/kg	33300	--	2000	A
PCBs, Total	4320000		ug/kg	33300	--	2000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-06 D
 Client ID: UV-17/9-10
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8082
 Analytical Date: 04/08/15 06:18
 Analyst: JW
 Percent Solids: 18%

Date Collected: 04/01/15 14:50
 Date Received: 04/01/15
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/02/15 11:25
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/03/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/03/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	1090	--	10	A
Aroclor 1221	ND		ug/kg	1090	--	10	A
Aroclor 1232	ND		ug/kg	1090	--	10	A
Aroclor 1242	15500		ug/kg	1090	--	10	B
Aroclor 1248	ND		ug/kg	725	--	10	A
Aroclor 1254	21400		ug/kg	1090	--	10	B
Aroclor 1260	ND		ug/kg	725	--	10	A
Aroclor 1262	ND		ug/kg	362	--	10	A
Aroclor 1268	ND		ug/kg	362	--	10	A
PCBs, Total	36900		ug/kg	362	--	10	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8082
 Analytical Date: 04/03/15 14:20
 Analyst: JW

Extraction Method: EPA 3540C
 Extraction Date: 04/02/15 09:45
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/03/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/03/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 02-06 Batch: WG772935-1						
Aroclor 1016	ND		ug/kg	19.1	--	A
Aroclor 1221	ND		ug/kg	19.1	--	A
Aroclor 1232	ND		ug/kg	19.1	--	A
Aroclor 1242	ND		ug/kg	19.1	--	A
Aroclor 1248	ND		ug/kg	12.7	--	A
Aroclor 1254	ND		ug/kg	19.1	--	A
Aroclor 1260	ND		ug/kg	12.7	--	A
Aroclor 1262	ND		ug/kg	6.36	--	A
Aroclor 1268	ND		ug/kg	6.36	--	A
PCBs, Total	ND		ug/kg	6.36	--	A

Surrogate	%Recovery	Qualifier	Acceptance	Column
			Criteria	
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	29	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	33		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	LCS		LCS		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 02-06 Batch: WG772935-2 WG772935-3								
Aroclor 1016	64		69		40-140		8	30 A
Aroclor 1260	55		57		40-140		4	30 A

Surrogate	LCS		LCS		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		61		30-150	A
Decachlorobiphenyl	54		54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		62		30-150	B
Decachlorobiphenyl	57		55		30-150	B



INORGANICS & MISCELLANEOUS

Project Name: AEROVOX-UVOST

Lab Number: L1506417

Project Number: 39744051.40003

Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-02

Date Collected: 04/01/15 14:30

Client ID: UV-17/5-6

Date Received: 04/01/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	38.1		%	0.100	NA	1	-	04/01/15 22:49	30,2540G	RT



Project Name: AEROVOX-UVOST

Lab Number: L1506417

Project Number: 39744051.40003

Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-03

Date Collected: 04/01/15 14:35

Client ID: UV-17/6-7

Date Received: 04/01/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	54.5		%	0.100	NA	1	-	04/01/15 22:49	30,2540G	RT



Project Name: AEROVOX-UVOST

Lab Number: L1506417

Project Number: 39744051.40003

Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-04

Date Collected: 04/01/15 14:40

Client ID: UV-177-8

Date Received: 04/01/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	60.6		%	0.100	NA	1	-	04/01/15 22:49	30,2540G	RT



Project Name: AEROVOX-UVOST

Lab Number: L1506417

Project Number: 39744051.40003

Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-05

Date Collected: 04/01/15 14:45

Client ID: UV-17/8-9

Date Received: 04/01/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	39.1		%	0.100	NA	1	-	04/01/15 22:49	30,2540G	RT



Project Name: AEROVOX-UVOST

Lab Number: L1506417

Project Number: 39744051.40003

Report Date: 04/08/15

SAMPLE RESULTS

Lab ID: L1506417-06

Date Collected: 04/01/15 14:50

Client ID: UV-17/9-10

Date Received: 04/01/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	18.2		%	0.100	NA	1	-	04/01/15 22:49	30,2540G	RT



Lab Duplicate Analysis

Batch Quality Control

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02-06 QC Batch ID: WG772771-1 QC Sample: L1506448-01 Client ID: DUP Sample						
Solids, Total	88.5	88.1	%	0		20



Project Name: AEROVOX-UVOST

Lab Number: L1506417

Project Number: 39744051.40003

Report Date: 04/08/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 04/01/2015 21:11

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1506417-01A	Vial MeOH preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-01B	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-02A	Vial MeOH preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-02B	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-02C	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-02D	Glass 120ml/4oz unpreserved	A	N/A	4.3	Y	Absent	MCP-8082LL-10-3540C(365)
L1506417-02E	Plastic 2oz unpreserved for TS	A	N/A	4.3	Y	Absent	TS(7)
L1506417-03A	Vial MeOH preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-03B	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-03C	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-03D	Glass 120ml/4oz unpreserved	A	N/A	4.3	Y	Absent	MCP-8082LL-10-3540C(365)
L1506417-03E	Plastic 2oz unpreserved for TS	A	N/A	4.3	Y	Absent	TS(7)
L1506417-04A	Vial MeOH preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-04B	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-04C	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-04D	Glass 120ml/4oz unpreserved	A	N/A	4.3	Y	Absent	MCP-8082LL-10-3540C(365)
L1506417-04E	Plastic 2oz unpreserved for TS	A	N/A	4.3	Y	Absent	TS(7)
L1506417-05A	Vial MeOH preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-05B	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-05C	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-05D	Glass 120ml/4oz unpreserved	A	N/A	4.3	Y	Absent	MCP-8082LL-10-3540C(365)
L1506417-05E	Plastic 2oz unpreserved for TS	A	N/A	4.3	Y	Absent	TS(7)
L1506417-06A	Vial MeOH preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-06B	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-06C	Vial water preserved	A	N/A	4.3	Y	Absent	MCP-8260HLW-10(14)
L1506417-06D	Glass 120ml/4oz unpreserved	A	N/A	4.3	Y	Absent	MCP-8082LL-10-3540C(365)
L1506417-06E	Plastic 2oz unpreserved for TS	A	N/A	4.3	Y	Absent	TS(7)

*Values in parentheses indicate holding time in days



Project Name: AEROVOX-UVOST

Lab Number: L1506417

Project Number: 39744051.40003

Report Date: 04/08/15

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
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*Values in parentheses indicate holding time in days



Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report



Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

Data Qualifiers

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

Project Name: AEROVOX-UVOST
Project Number: 39744051.40003

Lab Number: L1506417
Report Date: 04/08/15

REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4/1/15 ALPHA Job #: 21506417

Report Information - Data Deliverables
 ADEX EMAIL
Same as Client Info PO #:

Project Information
Project Name: Aerovox - UVOST
Project Location: New Bedford, MA
Project #: 39744057.40003
Project Manager: J. LeClair/M. Wade
ALPHA Quote #:
Turn-Around Time

Client Information
Client: AECOM
Address: 1155 Elm St, Suite 401
Manchester, NH 03101
Phone: (603) 606-4800
Email: (603) 401-7322
Judith.Leclair@aecom.com
Additional Project Information:
CVOC only

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS	Criteria
		Date	Time				
60417-01	TRIP BLANK	4/1/15	1400	TB	JZH	CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
02	UV-17/5-6	1430	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
03	UV-17/6-7	1435	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
04	UV-17/7-8	1440	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
05	UV-17/8-9	1445	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
06	UV-17/9-10	1450	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials	ANALYSIS	Criteria
60417-01	TRIP BLANK	4/1/15	1400	TB	JZH	CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
02	UV-17/5-6	1430	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
03	UV-17/6-7	1435	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
04	UV-17/7-8	1440	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
05	UV-17/8-9	1445	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	
06	UV-17/9-10	1450	5	S		CVOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2 SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15 METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13 EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	

Container Type: V
Preservative: O

Relinquished By: [Signature]
Date/Time: 4/1/15 15:15
Received By: [Signature]
Date/Time: 4/1/15 16:20

Container Type: V
Preservative: O

Relinquished By: [Signature]
Date/Time: 4/1/15 17:55
Received By: [Signature]
Date/Time: 4/1/15 18:30

Container Type: P
Preservative: A

Relinquished By: [Signature]
Date/Time: 4/1/15 16:20
Received By: [Signature]
Date/Time: 4/1/15 17:55

Container Type: V
Preservative: O

Relinquished By: [Signature]
Date/Time: 4/1/15 17:55
Received By: [Signature]
Date/Time: 4/1/15 18:30

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1506417

Instrument ID: Voal00.i Calibration Date: 05-APR-2015 Time: 11:16

Lab File ID: 0405A01 Init. Calib. Date(s): 29-JAN-2 29-JAN-2

Sample No: 8260 CCAL Init. Calib. Times : 17:51 20:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane_____	.14266	.16262	.1	14	20	
chloromethane_____	.18605	.20215	.1	9	20	
vinyl chloride_____	.24636	.29673	.1	20	20	F
bromomethane_____	.25017	.27674	.1	11	20	
chloroethane_____	.23209	.27207	.1	17	20	
trichlorofluoromethane_____	.51466	.5346	.1	4	20	
ethyl ether_____	.13465	.19059	.05	42	20	F
1,1,-dichloroethene_____	.20492	.18969	.1	-7	20	
carbon disulfide_____	.61246	.62873	.1	3	20	
methylene chloride_____	.24904	.23256	.1	-7	20	
acetone_____	.06697	.0759	.1	13	20	F
trans-1,2-dichloroethene_____	.2445	.22446	.1	-8	20	
methyl tert butyl ether_____	.66398	.5912	.1	-11	20	
Diisopropyl Ether_____	.68195	.65042	.05	-5	20	
1,1-dichloroethane_____	.40085	.40016	.2	0	20	
Ethyl-Tert-Butyl-Ether_____	.70336	.63377	.05	-10	20	
cis-1,2-dichloroethene_____	.27398	.25067	.1	-9	20	
2,2-dichloropropane_____	.33034	.3387	.05	3	20	
bromochloromethane_____	.13265	.12112	.05	-9	20	
chloroform_____	.44373	.42136	.2	-5	20	
carbontetrachloride_____	.36916	.34008	.1	-8	20	
tetrahydrofuran_____	.06362	.06744	.05	6	20	
1,1,1-trichloroethane_____	.39112	.37384	.1	-4	20	
2-butanone_____	.10055	.106	.1	5	20	
1,1-dichloropropene_____	.31381	.3045	.05	-3	20	
benzene_____	.93159	.89641	.5	-4	20	
Tertiary-Amyl Methyl Ether_____	.66218	.57855	.05	-13	20	
1,2-dichloroethane_____	.30545	.30403	.1	0	20	
trichloroethene_____	.25884	.24541	.2	-5	20	
dibromomethane_____	.15481	.14445	.05	-7	20	
1,2-dichloropropane_____	.22196	.21459	.1	-3	20	
bromodichloromethane_____	.35156	.32265	.2	-8	20	
1,4-dioxane_____	.0031	.00256	.05	-17	20	F
cis-1,3-dichloropropene_____	.38597	.36009	.2	-7	20	
toluene_____	.71945	.71955	.4	0	20	
4-methyl-2-pentanone_____	.09048	.07136	.1	-21	20	F
tetrachloroethene_____	.32329	.2967	.2	-8	20	
trans-1,3-dichloropropene_____	.41417	.41904	.1	1	20	

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1506417

Instrument ID: Voal00.i Calibration Date: 05-APR-2015 Time: 11:16

Lab File ID: 0405A01 Init. Calib. Date(s): 29-JAN-2 29-JAN-2

Sample No: 8260 CCAL Init. Calib. Times : 17:51 20:55

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.20894	.21835	.1	5	20
chlorodibromomethane	.34275	.31945	.1	-7	20
1,3-dichloropropane	.40942	.4189	.05	2	20
1,2-dibromoethane	.26597	.25356	.1	-5	20
2-hexanone	.17623	.16428	.1	-7	20
chlorobenzene	.84343	.80946	.5	-4	20
ethyl benzene	1.3896	1.3777	.1	-1	20
1,1,1,2-tetrachloroethane	.319	.30188	.05	-5	20
p/m xylene	.56059	.54634	.1	-3	20
o xylene	.54217	.51909	.3	-4	20
styrene	.94666	.91642	.3	-3	20
bromoform	.4302	.38968	.1	-9	20
isopropylbenzene	2.4512	2.3605	.1	-4	20
bromobenzene	.66085	.59842	.05	-9	20
n-propylbenzene	1.7184	1.7598	.05	2	20
1,1,2,2,-tetrachloroethane	.62878	.64616	.3	3	20
2-chlorotoluene	1.7182	1.7598	.05	2	20
1,3,5-trimethylbenzene	2.0665	2.1137	.05	2	20
1,2,3-trichloropropane	.49719	.51192	.05	3	20
4-chorotoluene	1.7121	1.7704	.05	3	20
tert-butylbenzene	1.7949	1.7183	.05	-4	20
1,2,4-trimethylbenzene	2.0874	2.0924	.05	0	20
sec-butylbenzene	2.6713	2.7125	.05	2	20
p-isopropyltoluene	2.3059	2.2545	.05	-2	20
1,3-dichlorobenzene	1.2643	1.2367	.6	-2	20
1,4-dichlorobenzene	1.2960	1.2493	.5	-4	20
n-butylbenzene	2.0275	2.2504	.05	11	20
1,2-dichlorobenzene	1.1870	1.1214	.4	-6	20
1,2-dibromo-3-chloropropane	.12853	.10796	.05	-16	20
hexachlorobutadiene	.41842	.34689	.05	-17	20
1,2,4-trichlorobenzene	.83344	.72171	.2	-13	20
naphthalene	2.1788	1.9051	.05	-13	20
1,2,3-trichlorobenzene	.78421	.67225	.05	-14	20
dibromofluoromethane	.28631	.27797	.05	-3	30
1,2-dichloroethane-d4	.2542	.28658	.05	13	30
toluene-d8	1.1506	1.2289	.05	7	30
4-bromofluorobenzene	.83978	.86805	.05	3	30

FORM VII MCP-8260HLW-10



ANALYTICAL REPORT

Lab Number:	L1508161
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX
Project Number:	39744051.20001
Report Date:	05/08/15

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1508161-01	TRIP BLANK	SOIL	NEW BEDFORD, MA	04/20/15 00:00	04/21/15
L1508161-02	MW-30B (1-3)	SOIL	NEW BEDFORD, MA	04/20/15 11:10	04/21/15
L1508161-03	MW-30B (8-10)	SOIL	NEW BEDFORD, MA	04/20/15 11:15	04/21/15
L1508161-04	MW-30B (13-15)	SOIL	NEW BEDFORD, MA	04/20/15 11:25	04/21/15
L1508161-05	MW-30B (18-20)	SOIL	NEW BEDFORD, MA	04/20/15 11:35	04/21/15
L1508161-06	MW-30B (23-25)	SOIL	NEW BEDFORD, MA	04/20/15 11:50	04/21/15
L1508161-07	MW-31B (8-10)	SOIL	NEW BEDFORD, MA	04/20/15 13:20	04/21/15
L1508161-08	MW-31B (13-15)	SOIL	NEW BEDFORD, MA	04/20/15 13:25	04/21/15
L1508161-09	MW-31B (18-20)	SOIL	NEW BEDFORD, MA	04/20/15 13:35	04/21/15
L1508161-10	MW-31B (23-25)	SOIL	NEW BEDFORD, MA	04/20/15 14:00	04/21/15
L1508161-11	MW-31B (28-30)	SOIL	NEW BEDFORD, MA	04/20/15 14:30	04/21/15
L1508161-12	MW-31B (31-33)	SOIL	NEW BEDFORD, MA	04/20/15 15:00	04/21/15
L1508161-13	B15GS (4-7)	SOIL	NEW BEDFORD, MA	04/21/15 11:20	04/21/15
L1508161-14	B15GS (15-17)	SOIL	NEW BEDFORD, MA	04/21/15 11:25	04/21/15
L1508161-15	B15GS (22-24)	SOIL	NEW BEDFORD, MA	04/21/15 11:30	04/21/15
L1508161-16	B15GS (25-29)	SOIL	NEW BEDFORD, MA	04/21/15 11:35	04/21/15
L1508161-17	B15GS (30-32)	SOIL	NEW BEDFORD, MA	04/21/15 11:40	04/21/15

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Case Narrative (continued)

Report Submission

This final report replaces the partial report issued April 28, 2015, and includes the results of all requested analyses.

MCP Related Narratives

Volatile Organics

L1508161-07: The analysis of Volatile Organics by EPA Method 5035/8260 Low Level could not be performed due to the elevated concentrations of non-target compounds in the sample.

In reference to question G:

L1508161-07: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration, associated with L1508161-01, -06, and -07, did not meet the method required minimum response factor on the lowest calibration standard for acetone (0.07101) and 4-methyl-2-pentanone (0.05383), as well as the average response factor for acetone, 2-butanone, and 4-methyl-2-pentanone. The initial calibration verification is outside acceptance criteria for dichlorodifluoromethane (159%), but within overall method criteria.

The continuing calibration standard, associated with L1508161-01, -06, and -07, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question I:

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


Non-MCP Related Narratives

Grain Size Analysis

The WG782900-1 Laboratory Duplicate RPDs, performed on L1508161-14, are outside the acceptance criteria for % fine gravel (65%), % total gravel (65%), % coarse sand (23%), % medium sand (21%), and % fine sand (22%). The elevated RPDs have been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 05/08/15

ORGANICS

VOLATILES

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-01
 Client ID: TRIP BLANK
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/25/15 14:38
 Analyst: BN
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/20/15 00:00
 Date Received: 04/21/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	--	1
1,1-Dichloroethane	ND		ug/kg	1.5	--	1
Chloroform	ND		ug/kg	1.5	--	1
Carbon tetrachloride	ND		ug/kg	1.0	--	1
1,2-Dichloropropane	ND		ug/kg	3.5	--	1
Dibromochloromethane	ND		ug/kg	1.0	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	--	1
Tetrachloroethene	ND		ug/kg	1.0	--	1
Chlorobenzene	ND		ug/kg	1.0	--	1
1,2-Dichloroethane	ND		ug/kg	1.0	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	--	1
Bromodichloromethane	ND		ug/kg	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--	1
Bromoform	ND		ug/kg	4.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--	1
Chloromethane	ND		ug/kg	4.0	--	1
Vinyl chloride	ND		ug/kg	2.0	--	1
Chloroethane	ND		ug/kg	2.0	--	1
1,1-Dichloroethene	ND		ug/kg	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--	1
Trichloroethene	ND		ug/kg	1.0	--	1
1,2-Dichlorobenzene	ND		ug/kg	4.0	--	1
1,3-Dichlorobenzene	ND		ug/kg	4.0	--	1
1,4-Dichlorobenzene	ND		ug/kg	4.0	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--	1
Dichlorodifluoromethane	ND		ug/kg	10	--	1
1,2-Dibromoethane	ND		ug/kg	4.0	--	1

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-01
Client ID: TRIP BLANK
Sample Location: NEW BEDFORD, MA

Date Collected: 04/20/15 00:00
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics by 8260/5035 - Westborough Lab

1,3-Dichloropropane	ND		ug/kg	4.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--	1
o-Chlorotoluene	ND		ug/kg	4.0	--	1
p-Chlorotoluene	ND		ug/kg	4.0	--	1
Hexachlorobutadiene	ND		ug/kg	4.0	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	4.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-01
Client ID: TRIP BLANK
Sample Location: NEW BEDFORD, MA
Matrix: Soil
Analytical Method: 97,8260C
Analytical Date: 04/26/15 18:30
Analyst: BN
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 04/20/15 00:00
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	500	--	1
1,1-Dichloroethane	ND		ug/kg	75	--	1
Chloroform	ND		ug/kg	75	--	1
Carbon tetrachloride	ND		ug/kg	50	--	1
1,2-Dichloropropane	ND		ug/kg	180	--	1
Dibromochloromethane	ND		ug/kg	50	--	1
1,1,2-Trichloroethane	ND		ug/kg	75	--	1
Tetrachloroethene	ND		ug/kg	50	--	1
Chlorobenzene	ND		ug/kg	50	--	1
1,2-Dichloroethane	ND		ug/kg	50	--	1
1,1,1-Trichloroethane	ND		ug/kg	50	--	1
Bromodichloromethane	ND		ug/kg	50	--	1
trans-1,3-Dichloropropene	ND		ug/kg	50	--	1
cis-1,3-Dichloropropene	ND		ug/kg	50	--	1
1,3-Dichloropropene, Total	ND		ug/kg	50	--	1
Bromoform	ND		ug/kg	200	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--	1
Chloromethane	ND		ug/kg	200	--	1
Vinyl chloride	ND		ug/kg	100	--	1
Chloroethane	ND		ug/kg	100	--	1
1,1-Dichloroethene	ND		ug/kg	50	--	1
trans-1,2-Dichloroethene	ND		ug/kg	75	--	1
Trichloroethene	ND		ug/kg	50	--	1
1,2-Dichlorobenzene	ND		ug/kg	200	--	1
1,3-Dichlorobenzene	ND		ug/kg	200	--	1
1,4-Dichlorobenzene	ND		ug/kg	200	--	1
cis-1,2-Dichloroethene	ND		ug/kg	50	--	1
1,2-Dichloroethene, Total	ND		ug/kg	50	--	1
Dichlorodifluoromethane	ND		ug/kg	500	--	1
1,2-Dibromoethane	ND		ug/kg	200	--	1

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-01
Client ID: TRIP BLANK
Sample Location: NEW BEDFORD, MA

Date Collected: 04/20/15 00:00
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics by 5035 High - Westborough Lab

1,3-Dichloropropane	ND		ug/kg	200	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--	1
o-Chlorotoluene	ND		ug/kg	200	--	1
p-Chlorotoluene	ND		ug/kg	200	--	1
Hexachlorobutadiene	ND		ug/kg	200	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-06
 Client ID: MW-30B (23-25)
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/25/15 15:04
 Analyst: BN
 Percent Solids: 88%

Date Collected: 04/20/15 11:50
 Date Received: 04/21/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	6.4	--	1
1,1-Dichloroethane	ND		ug/kg	0.96	--	1
Chloroform	ND		ug/kg	0.96	--	1
Carbon tetrachloride	ND		ug/kg	0.64	--	1
1,2-Dichloropropane	ND		ug/kg	2.2	--	1
Dibromochloromethane	ND		ug/kg	0.64	--	1
1,1,2-Trichloroethane	ND		ug/kg	0.96	--	1
Tetrachloroethene	ND		ug/kg	0.64	--	1
Chlorobenzene	ND		ug/kg	0.64	--	1
1,2-Dichloroethane	ND		ug/kg	0.64	--	1
1,1,1-Trichloroethane	ND		ug/kg	0.64	--	1
Bromodichloromethane	ND		ug/kg	0.64	--	1
trans-1,3-Dichloropropene	ND		ug/kg	0.64	--	1
cis-1,3-Dichloropropene	ND		ug/kg	0.64	--	1
1,3-Dichloropropene, Total	ND		ug/kg	0.64	--	1
Bromoform	ND		ug/kg	2.6	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.64	--	1
Chloromethane	ND		ug/kg	2.6	--	1
Vinyl chloride	ND		ug/kg	1.3	--	1
Chloroethane	ND		ug/kg	1.3	--	1
1,1-Dichloroethene	ND		ug/kg	0.64	--	1
trans-1,2-Dichloroethene	ND		ug/kg	0.96	--	1
Trichloroethene	7.7		ug/kg	0.64	--	1
1,2-Dichlorobenzene	ND		ug/kg	2.6	--	1
1,3-Dichlorobenzene	ND		ug/kg	2.6	--	1
1,4-Dichlorobenzene	ND		ug/kg	2.6	--	1
cis-1,2-Dichloroethene	2.0		ug/kg	0.64	--	1
1,2-Dichloroethene, Total	2.0		ug/kg	0.64	--	1
Dichlorodifluoromethane	ND		ug/kg	6.4	--	1
1,2-Dibromoethane	ND		ug/kg	2.6	--	1

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-06
Client ID: MW-30B (23-25)
Sample Location: NEW BEDFORD, MA

Date Collected: 04/20/15 11:50
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics by 8260/5035 - Westborough Lab

1,3-Dichloropropane	ND		ug/kg	2.6	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.64	--	1
o-Chlorotoluene	ND		ug/kg	2.6	--	1
p-Chlorotoluene	ND		ug/kg	2.6	--	1
Hexachlorobutadiene	ND		ug/kg	2.6	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	104		70-130

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-07
 Client ID: MW-31B (8-10)
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8260C
 Analytical Date: 04/26/15 18:56
 Analyst: BN
 Percent Solids: 87%

Date Collected: 04/20/15 13:20
 Date Received: 04/21/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by 8260/5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	530	--	1
1,1-Dichloroethane	ND		ug/kg	80	--	1
Chloroform	ND		ug/kg	80	--	1
Carbon tetrachloride	ND		ug/kg	53	--	1
1,2-Dichloropropane	ND		ug/kg	190	--	1
Dibromochloromethane	ND		ug/kg	53	--	1
1,1,2-Trichloroethane	ND		ug/kg	80	--	1
Tetrachloroethene	ND		ug/kg	53	--	1
Chlorobenzene	ND		ug/kg	53	--	1
1,2-Dichloroethane	ND		ug/kg	53	--	1
1,1,1-Trichloroethane	ND		ug/kg	53	--	1
Bromodichloromethane	ND		ug/kg	53	--	1
trans-1,3-Dichloropropene	ND		ug/kg	53	--	1
cis-1,3-Dichloropropene	ND		ug/kg	53	--	1
1,3-Dichloropropene, Total	ND		ug/kg	53	--	1
Bromoform	ND		ug/kg	210	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	53	--	1
Chloromethane	ND		ug/kg	210	--	1
Vinyl chloride	ND		ug/kg	110	--	1
Chloroethane	ND		ug/kg	110	--	1
1,1-Dichloroethene	ND		ug/kg	53	--	1
trans-1,2-Dichloroethene	ND		ug/kg	80	--	1
Trichloroethene	ND		ug/kg	53	--	1
1,2-Dichlorobenzene	ND		ug/kg	210	--	1
1,3-Dichlorobenzene	ND		ug/kg	210	--	1
1,4-Dichlorobenzene	ND		ug/kg	210	--	1
cis-1,2-Dichloroethene	ND		ug/kg	53	--	1
1,2-Dichloroethene, Total	ND		ug/kg	53	--	1
Dichlorodifluoromethane	ND		ug/kg	530	--	1
1,2-Dibromoethane	ND		ug/kg	210	--	1

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-07
Client ID: MW-31B (8-10)
Sample Location: NEW BEDFORD, MA

Date Collected: 04/20/15 13:20
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics by 8260/5035 - Westborough Lab

1,3-Dichloropropane	ND		ug/kg	210	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	53	--	1
o-Chlorotoluene	ND		ug/kg	210	--	1
p-Chlorotoluene	ND		ug/kg	210	--	1
Hexachlorobutadiene	ND		ug/kg	210	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	102		70-130

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/25/15 08:53
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01,06 Batch: WG779473-3					
Methylene chloride	ND		ug/kg	10	--
1,1-Dichloroethane	ND		ug/kg	1.5	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	3.5	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.5	--
Tetrachloroethene	ND		ug/kg	1.0	--
Chlorobenzene	ND		ug/kg	1.0	--
Trichlorofluoromethane	ND		ug/kg	4.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	1.0	--
Bromodichloromethane	ND		ug/kg	1.0	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--
1,1-Dichloropropene	ND		ug/kg	4.0	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--
Benzene	ND		ug/kg	1.0	--
Toluene	ND		ug/kg	1.5	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	4.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	2.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--
Trichloroethene	ND		ug/kg	1.0	--

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/25/15 08:53
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01,06 Batch: WG779473-3					
1,2-Dichlorobenzene	ND		ug/kg	4.0	--
1,3-Dichlorobenzene	ND		ug/kg	4.0	--
1,4-Dichlorobenzene	ND		ug/kg	4.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	2.0	--
Xylenes, Total	ND		ug/kg	2.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	4.0	--
1,2,3-Trichloropropane	ND		ug/kg	4.0	--
Styrene	ND		ug/kg	2.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	36	--
Carbon disulfide	ND		ug/kg	4.0	--
Methyl ethyl ketone	ND		ug/kg	10	--
Methyl isobutyl ketone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Bromochloromethane	ND		ug/kg	4.0	--
Tetrahydrofuran	ND		ug/kg	4.0	--
2,2-Dichloropropane	ND		ug/kg	5.0	--
1,2-Dibromoethane	ND		ug/kg	4.0	--
1,3-Dichloropropane	ND		ug/kg	4.0	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--
Bromobenzene	ND		ug/kg	5.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	4.0	--
o-Chlorotoluene	ND		ug/kg	4.0	--



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
Analytical Date: 04/25/15 08:53
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01,06 Batch: WG779473-3					
p-Chlorotoluene	ND		ug/kg	4.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	--
Hexachlorobutadiene	ND		ug/kg	4.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	4.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	4.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	4.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	4.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	4.0	--
Diethyl ether	ND		ug/kg	5.0	--
Diisopropyl Ether	ND		ug/kg	4.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	--
1,4-Dioxane	ND		ug/kg	40	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	102		70-130

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/26/15 13:38
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01,07 Batch: WG779492-3					
Methylene chloride	ND		ug/kg	500	--
1,1-Dichloroethane	ND		ug/kg	75	--
Chloroform	ND		ug/kg	75	--
Carbon tetrachloride	ND		ug/kg	50	--
1,2-Dichloropropane	ND		ug/kg	180	--
Dibromochloromethane	ND		ug/kg	50	--
1,1,2-Trichloroethane	ND		ug/kg	75	--
Tetrachloroethene	ND		ug/kg	50	--
Chlorobenzene	ND		ug/kg	50	--
Trichlorofluoromethane	ND		ug/kg	200	--
1,2-Dichloroethane	ND		ug/kg	50	--
1,1,1-Trichloroethane	ND		ug/kg	50	--
Bromodichloromethane	ND		ug/kg	50	--
trans-1,3-Dichloropropene	ND		ug/kg	50	--
cis-1,3-Dichloropropene	ND		ug/kg	50	--
1,3-Dichloropropene, Total	ND		ug/kg	50	--
1,1-Dichloropropene	ND		ug/kg	200	--
Bromoform	ND		ug/kg	200	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	--
Benzene	ND		ug/kg	50	--
Toluene	ND		ug/kg	75	--
Ethylbenzene	ND		ug/kg	50	--
Chloromethane	ND		ug/kg	200	--
Bromomethane	ND		ug/kg	100	--
Vinyl chloride	ND		ug/kg	100	--
Chloroethane	ND		ug/kg	100	--
1,1-Dichloroethene	ND		ug/kg	50	--
trans-1,2-Dichloroethene	ND		ug/kg	75	--
Trichloroethene	ND		ug/kg	50	--

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/26/15 13:38
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01,07 Batch: WG779492-3					
1,2-Dichlorobenzene	ND		ug/kg	200	--
1,3-Dichlorobenzene	ND		ug/kg	200	--
1,4-Dichlorobenzene	ND		ug/kg	200	--
Methyl tert butyl ether	ND		ug/kg	100	--
p/m-Xylene	ND		ug/kg	100	--
o-Xylene	ND		ug/kg	100	--
Xylenes, Total	ND		ug/kg	100	--
cis-1,2-Dichloroethene	ND		ug/kg	50	--
1,2-Dichloroethene, Total	ND		ug/kg	50	--
Dibromomethane	ND		ug/kg	200	--
1,2,3-Trichloropropane	ND		ug/kg	200	--
Styrene	ND		ug/kg	100	--
Dichlorodifluoromethane	ND		ug/kg	500	--
Acetone	ND		ug/kg	1800	--
Carbon disulfide	ND		ug/kg	200	--
Methyl ethyl ketone	ND		ug/kg	500	--
Methyl isobutyl ketone	ND		ug/kg	500	--
2-Hexanone	ND		ug/kg	500	--
Bromochloromethane	ND		ug/kg	200	--
Tetrahydrofuran	ND		ug/kg	200	--
2,2-Dichloropropane	ND		ug/kg	250	--
1,2-Dibromoethane	ND		ug/kg	200	--
1,3-Dichloropropane	ND		ug/kg	200	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	--
Bromobenzene	ND		ug/kg	250	--
n-Butylbenzene	ND		ug/kg	50	--
sec-Butylbenzene	ND		ug/kg	50	--
tert-Butylbenzene	ND		ug/kg	200	--
o-Chlorotoluene	ND		ug/kg	200	--



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/26/15 13:38
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by 8260/5035 - Westborough Lab for sample(s): 01,07 Batch: WG779492-3					
p-Chlorotoluene	ND		ug/kg	200	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	--
Hexachlorobutadiene	ND		ug/kg	200	--
Isopropylbenzene	ND		ug/kg	50	--
p-Isopropyltoluene	ND		ug/kg	50	--
Naphthalene	ND		ug/kg	200	--
n-Propylbenzene	ND		ug/kg	50	--
1,2,3-Trichlorobenzene	ND		ug/kg	200	--
1,2,4-Trichlorobenzene	ND		ug/kg	200	--
1,3,5-Trimethylbenzene	ND		ug/kg	200	--
1,2,4-Trimethylbenzene	ND		ug/kg	200	--
Diethyl ether	ND		ug/kg	250	--
Diisopropyl Ether	ND		ug/kg	200	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	--
1,4-Dioxane	ND		ug/kg	5000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01,06 Batch: WG779473-1 WG779473-2										
Methylene chloride	104		104		70-130		0		0	20
1,1-Dichloroethane	111		110		70-130		1		1	20
Chloroform	108		107		70-130		1		1	20
Carbon tetrachloride	112		110		70-130		2		2	20
1,2-Dichloropropane	109		110		70-130		1		1	20
Dibromochloromethane	104		106		70-130		2		2	20
1,1,2-Trichloroethane	107		107		70-130		0		0	20
Tetrachloroethene	114		117		70-130		3		3	20
Chlorobenzene	108		108		70-130		0		0	20
Trichlorofluoromethane	119		116		70-130		3		3	20
1,2-Dichloroethane	109		107		70-130		2		2	20
1,1,1-Trichloroethane	112		109		70-130		3		3	20
Bromodichloromethane	109		109		70-130		0		0	20
trans-1,3-Dichloropropene	109		109		70-130		0		0	20
cis-1,3-Dichloropropene	108		109		70-130		1		1	20
1,1-Dichloropropene	112		111		70-130		1		1	20
Bromoform	100		101		70-130		1		1	20
1,1,2,2-Tetrachloroethane	103		101		70-130		2		2	20
Benzene	108		108		70-130		0		0	20
Toluene	109		110		70-130		1		1	20
Ethylbenzene	109		110		70-130		1		1	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01,06 Batch: WG779473-1 WG779473-2												
Chloromethane	99		79		70-130		22	Q			20	20
Bromomethane	98		86		70-130		13				20	20
Vinyl chloride	106		102		70-130		4				20	20
Chloroethane	114		113		70-130		1				20	20
1,1-Dichloroethene	116		112		70-130		4				20	20
trans-1,2-Dichloroethene	108		107		70-130		1				20	20
Trichloroethene	109		108		70-130		1				20	20
1,2-Dichlorobenzene	106		108		70-130		2				20	20
1,3-Dichlorobenzene	106		110		70-130		4				20	20
1,4-Dichlorobenzene	106		108		70-130		2				20	20
Methyl tert butyl ether	106		102		70-130		4				20	20
p/m-Xylene	109		110		70-130		1				20	20
o-Xylene	110		112		70-130		2				20	20
cis-1,2-Dichloroethene	108		108		70-130		0				20	20
Dibromomethane	108		104		70-130		4				20	20
1,2,3-Trichloropropane	105		104		70-130		1				20	20
Styrene	111		112		70-130		1				20	20
Dichlorodifluoromethane	79		75		70-130		5				20	20
Acetone	148	Q	137		70-130	Q	8				20	20
Carbon disulfide	110		106		70-130		4				20	20
Methyl ethyl ketone	115		96		70-130		18				20	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01,06 Batch: WG779473-1 WG779473-2										
Methyl isobutyl ketone	106		100		70-130		6			20
2-Hexanone	117		109		70-130		7			20
Bromochloromethane	106		104		70-130		2			20
Tetrahydrofuran	115		108		70-130		6			20
2,2-Dichloropropane	113		112		70-130		1			20
1,2-Dibromoethane	104		104		70-130		0			20
1,3-Dichloropropane	108		106		70-130		2			20
1,1,1,2-Tetrachloroethane	106		110		70-130		4			20
Bromobenzene	104		106		70-130		2			20
n-Butylbenzene	116		117		70-130		1			20
sec-Butylbenzene	112		112		70-130		0			20
tert-Butylbenzene	107		110		70-130		3			20
o-Chlorotoluene	106		109		70-130		3			20
p-Chlorotoluene	107		112		70-130		5			20
1,2-Dibromo-3-chloropropane	96		90		70-130		6			20
Hexachlorobutadiene	110		113		70-130		3			20
Isopropylbenzene	108		111		70-130		3			20
p-Isopropyltoluene	110		113		70-130		3			20
Naphthalene	98		96		70-130		2			20
n-Propylbenzene	111		113		70-130		2			20
1,2,3-Trichlorobenzene	104		106		70-130		2			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	Qual	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01,06 Batch: WG779473-1 WG779473-2										
1,2,4-Trichlorobenzene	108		110		70-130		2			20
1,3,5-Trimethylbenzene	108		111		70-130		3			20
1,2,4-Trimethylbenzene	109		112		70-130		3			20
Diethyl ether	105		102		70-130		3			20
Diisopropyl Ether	115		113		70-130		2			20
Ethyl-Tert-Butyl-Ether	110		108		70-130		2			20
Tertiary-Amyl Methyl Ether	105		104		70-130		1			20
1,4-Dioxane	96		93		70-130		3			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	103		99		70-130
Toluene-d8	102		103		70-130
4-Bromofluorobenzene	101		100		70-130
Dibromofluoromethane	102		99		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01,07 Batch: WG779492-1 WG779492-2								
Methylene chloride	103		108		70-130		5	20
1,1-Dichloroethane	108		104		70-130		4	20
Chloroform	105		104		70-130		1	20
Carbon tetrachloride	110		105		70-130		5	20
1,2-Dichloropropane	107		103		70-130		4	20
Dibromochloromethane	104		99		70-130		5	20
1,1,2-Trichloroethane	106		103		70-130		3	20
Tetrachloroethene	112		104		70-130		7	20
Chlorobenzene	106		103		70-130		3	20
Trichlorofluoromethane	117		121		70-130		3	20
1,2-Dichloroethane	107		107		70-130		0	20
1,1,1-Trichloroethane	110		106		70-130		4	20
Bromodichloromethane	106		105		70-130		1	20
trans-1,3-Dichloropropene	107		104		70-130		3	20
cis-1,3-Dichloropropene	107		110		70-130		3	20
1,1-Dichloropropene	110		105		70-130		5	20
Bromoform	107		100		70-130		7	20
1,1,2,2-Tetrachloroethane	100		105		70-130		5	20
Benzene	106		102		70-130		4	20
Toluene	106		101		70-130		5	20
Ethylbenzene	108		102		70-130		6	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01,07 Batch: WG779492-1 WG779492-2										
Chloromethane	92		89		70-130		3		20	
Bromomethane	94		101		70-130		7		20	
Vinyl chloride	105		107		70-130		2		20	
Chloroethane	113		119		70-130		5		20	
1,1-Dichloroethene	112		115		70-130		3		20	
trans-1,2-Dichloroethene	106		102		70-130		4		20	
Trichloroethene	108		103		70-130		5		20	
1,2-Dichlorobenzene	104		99		70-130		5		20	
1,3-Dichlorobenzene	106		105		70-130		1		20	
1,4-Dichlorobenzene	104		102		70-130		2		20	
Methyl tert butyl ether	103		102		70-130		1		20	
p/m-Xylene	107		102		70-130		5		20	
o-Xylene	108		103		70-130		5		20	
cis-1,2-Dichloroethene	105		103		70-130		2		20	
Dibromomethane	106		105		70-130		1		20	
1,2,3-Trichloropropane	101		105		70-130		4		20	
Styrene	109		105		70-130		4		20	
Dichlorodifluoromethane	79		79		70-130		0		20	
Acetone	140	Q	135		70-130	Q	4		20	
Carbon disulfide	106		110		70-130		4		20	
Methyl ethyl ketone	110		104		70-130		6		20	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01,07 Batch: WG779492-1 WG779492-2										
Methyl isobutyl ketone	106		106		70-130		0			20
2-Hexanone	121		112		70-130		8			20
Bromochloromethane	104		105		70-130		1			20
Tetrahydrofuran	113		97		70-130		15			20
2,2-Dichloropropane	112		107		70-130		5			20
1,2-Dibromoethane	102		101		70-130		1			20
1,3-Dichloropropane	105		107		70-130		2			20
1,1,1,2-Tetrachloroethane	106		104		70-130		2			20
Bromobenzene	101		105		70-130		4			20
n-Butylbenzene	112		103		70-130		8			20
sec-Butylbenzene	107		106		70-130		1			20
tert-Butylbenzene	106		104		70-130		2			20
o-Chlorotoluene	104		107		70-130		3			20
p-Chlorotoluene	107		106		70-130		1			20
1,2-Dibromo-3-chloropropane	93		91		70-130		2			20
Hexachlorobutadiene	112		103		70-130		8			20
Isopropylbenzene	105		104		70-130		1			20
p-Isopropyltoluene	108		102		70-130		6			20
Naphthalene	97		92		70-130		5			20
n-Propylbenzene	107		109		70-130		2			20
1,2,3-Trichlorobenzene	104		100		70-130		4			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics by 8260/5035 - Westborough Lab Associated sample(s): 01,07 Batch: WG779492-1 WG779492-2										
1,2,4-Trichlorobenzene	109		102		70-130		7			20
1,3,5-Trimethylbenzene	105		107		70-130		2			20
1,2,4-Trimethylbenzene	106		105		70-130		1			20
Diethyl ether	103		112		70-130		8			20
Diisopropyl Ether	109		111		70-130		2			20
Ethyl-Tert-Butyl-Ether	106		107		70-130		1			20
Tertiary-Amyl Methyl Ether	104		101		70-130		3			20
1,4-Dioxane	94		99		70-130		5			20

Surrogate	LCS		LCS D		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	102		102		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	98		98		70-130
Dibromofluoromethane	100		101		70-130



PCBS

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-06
Client ID: MW-30B (23-25)
Sample Location: NEW BEDFORD, MA
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 04/27/15 19:22
Analyst: JT
Percent Solids: 88%

Date Collected: 04/20/15 11:50
Date Received: 04/21/15
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 04/24/15 18:55
Cleanup Method: EPA 3665A
Cleanup Date: 04/27/15
Cleanup Method: EPA 3660B
Cleanup Date: 04/27/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	21.5	--	1	A
Aroclor 1221	ND		ug/kg	21.5	--	1	A
Aroclor 1232	ND		ug/kg	21.5	--	1	A
Aroclor 1242	ND		ug/kg	21.5	--	1	A
Aroclor 1248	ND		ug/kg	14.3	--	1	A
Aroclor 1254	ND		ug/kg	21.5	--	1	A
Aroclor 1260	ND		ug/kg	14.3	--	1	A
Aroclor 1262	ND		ug/kg	7.17	--	1	A
Aroclor 1268	ND		ug/kg	7.17	--	1	A
PCBs, Total	ND		ug/kg	7.17	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	85		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	71		30-150	B

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-07
 Client ID: MW-31B (8-10)
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil
 Analytical Method: 97,8082
 Analytical Date: 04/27/15 19:34
 Analyst: JT
 Percent Solids: 87%

Date Collected: 04/20/15 13:20
 Date Received: 04/21/15
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 04/24/15 18:55
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/27/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/27/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/kg	22.0	--	1	A
Aroclor 1221	ND		ug/kg	22.0	--	1	A
Aroclor 1232	ND		ug/kg	22.0	--	1	A
Aroclor 1242	ND		ug/kg	22.0	--	1	A
Aroclor 1248	ND		ug/kg	14.6	--	1	A
Aroclor 1254	72.5		ug/kg	22.0	--	1	B
Aroclor 1260	ND		ug/kg	14.6	--	1	A
Aroclor 1262	ND		ug/kg	7.32	--	1	A
Aroclor 1268	ND		ug/kg	7.32	--	1	A
PCBs, Total	72.5		ug/kg	7.32	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	73		30-150	B

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8082A
 Analytical Date: 04/27/15 19:59
 Analyst: JT

Extraction Method: EPA 3540C
 Extraction Date: 04/24/15 18:55
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/27/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/27/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 06-07 Batch: WG779045-1						
Aroclor 1016	ND		ug/kg	19.5	--	A
Aroclor 1221	ND		ug/kg	19.5	--	A
Aroclor 1232	ND		ug/kg	19.5	--	A
Aroclor 1242	ND		ug/kg	19.5	--	A
Aroclor 1248	ND		ug/kg	13.0	--	A
Aroclor 1254	ND		ug/kg	19.5	--	A
Aroclor 1260	ND		ug/kg	13.0	--	A
Aroclor 1262	ND		ug/kg	6.50	--	A
Aroclor 1268	ND		ug/kg	6.50	--	A
PCBs, Total	ND		ug/kg	6.50	--	A

Surrogate	%Recovery	Qualifier	Acceptance	Column
			Criteria	
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	60		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	LCS		LCS		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 06-07 Batch: WG779045-2 WG779045-3								
Atrodor 1016	67		54		40-140		21	30 A
Atrodor 1260	62		53		40-140		16	30 A

Surrogate	LCS		LCS		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		53		30-150	A
Decachlorobiphenyl	82		67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		49		30-150	B
Decachlorobiphenyl	68		62		30-150	B



INORGANICS & MISCELLANEOUS

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-02
Client ID: MW-30B (1-3)
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 04/20/15 11:10
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Gravel	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Gravel	4.80		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Gravel	4.80		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Sand	5.40		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Medium Sand	19.7		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Sand	52.0		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Sand	77.1		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Silt Fine	17.8		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Clay Fine	0.300		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Fines	18.1		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
General Chemistry - Westborough Lab										
Solids, Total	89.9		%	0.100	NA	1	-	04/22/15 22:16	30,2540G	RT



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-06
Client ID: MW-30B (23-25)
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 04/20/15 11:50
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.4		%	0.100	NA	1	-	04/22/15 22:16	30,2540G	RT



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-07
Client ID: MW-31B (8-10)
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 04/20/15 13:20
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.9		%	0.100	NA	1	-	04/22/15 22:16	30,2540G	RT



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-14
Client ID: B15GS (15-17)
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 04/21/15 11:25
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Gravel	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Gravel	16.3		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Gravel	16.3		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Sand	27.1		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Medium Sand	46.2		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Sand	9.20		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Sand	82.5		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Silt Fine	1.20		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Clay Fine	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Fines	1.20		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
General Chemistry - Westborough Lab										
Solids, Total	87.6		%	0.100	NA	1	-	04/22/15 22:16	30,2540G	RT



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-15
Client ID: B15GS (22-24)
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 04/21/15 11:30
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Gravel	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Gravel	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Gravel	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Sand	2.40		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Medium Sand	37.6		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Sand	56.7		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Sand	96.7		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Silt Fine	3.30		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Clay Fine	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Fines	3.30		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
General Chemistry - Westborough Lab										
Solids, Total	79.7		%	0.100	NA	1	-	04/22/15 22:16	30,2540G	RT



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-16
Client ID: B15GS (25-29)
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 04/21/15 11:35
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Gravel	4.30		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Gravel	11.4		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Gravel	15.7		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Sand	23.5		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Medium Sand	40.8		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Sand	15.3		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Sand	79.6		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Silt Fine	4.70		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Clay Fine	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Fines	4.70		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
General Chemistry - Westborough Lab										
Solids, Total	86.6		%	0.100	NA	1	-	04/22/15 22:16	30,2540G	RT



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

SAMPLE RESULTS

Lab ID: L1508161-17
Client ID: B15GS (30-32)
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 04/21/15 11:40
Date Received: 04/21/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Gravel	31.6		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Gravel	6.80		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Gravel	38.4		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Coarse Sand	7.00		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Medium Sand	26.4		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Fine Sand	21.5		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Sand	54.9		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Silt Fine	6.70		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Clay Fine	ND		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
% Total Fines	6.70		%	0.100	NA	1	-	05/07/15 00:00	12,D422	LC
General Chemistry - Westborough Lab										
Solids, Total	83.6		%	0.100	NA	1	-	04/22/15 22:16	30,2540G	RT



Lab Duplicate Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02,06-07,14-17 QC Batch ID: WG778281-1 QC Sample: L1508094-01 Client ID: DUP Sample						
Solids, Total	82.4	81.9	%	1		20
Grain Size Analysis - Mansfield Lab Associated sample(s): 02,14-17 QC Batch ID: WG782900-1 QC Sample: L1508161-14 Client ID: B15GS (15-17)						
Cobbles	ND	ND	%	NC		20
% Coarse Gravel	ND	ND	%	NC		20
% Fine Gravel	16.3	8.30	%	65	Q	20
% Total Gravel	16.3	8.30	%	65	Q	20
% Coarse Sand	27.1	21.5	%	23	Q	20
% Medium Sand	46.2	57.3	%	21	Q	20
% Fine Sand	9.20	11.5	%	22	Q	20
% Total Sand	82.5	90.3	%	9		20
% Silt Fine	1.20	1.40	%	15		20
% Clay Fine	ND	ND	%	NC		20
% Total Fines	1.20	1.40	%	15		20



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 04/21/2015 23:17

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1508161-01A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	MCP-8260H-10(14),MCP-8260HLW-10(14),TS100(0)
L1508161-01B	Vial water preserved	A	N/A	3.3	Y	Absent	MCP-8260H-10(14),MCP-8260HLW-10(14),TS100(0)
L1508161-02A	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	TS(7)
L1508161-02B	Plastic 8oz unpreserved for Grai	A	N/A	3.3	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLER(),A2-HYDRO-FGRAVEL()
L1508161-03A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-03B	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-03C	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-03D	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-03E	Glass 60mL/2oz unpreserved	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-04A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-04B	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-04C	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-04D	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-04E	Glass 60mL/2oz unpreserved	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-05A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-05B	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-05C	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-05D	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-05E	Glass 60mL/2oz unpreserved	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-06A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	MCP-8260HLW-10(14)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1508161-06B	Vial water preserved	A	N/A	3.3	Y	Absent	MCP-8260HLW-10(14)
L1508161-06C	Vial water preserved	A	N/A	3.3	Y	Absent	MCP-8260HLW-10(14)
L1508161-06D	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	TS(7)
L1508161-06E	Glass 60mL/2oz unpreserved	A	N/A	3.3	Y	Absent	MCP-8082LL-10-3540C(365)
L1508161-07A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	MCP-8260HLW-10(14)
L1508161-07B	Vial water preserved	A	N/A	3.3	Y	Absent	MCP-8260HLW-10(14)
L1508161-07C	Vial water preserved	A	N/A	3.3	Y	Absent	MCP-8260HLW-10(14)
L1508161-07D	Glass 120ml/4oz unpreserved	A	N/A	3.3	Y	Absent	TS(7),MCP-8082LL-10-3540C(365)
L1508161-08A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-08B	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-08C	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-08D	Glass 120ml/4oz unpreserved	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-09A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-09B	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-09C	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-09D	Glass 120ml/4oz unpreserved	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-10A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-10B	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-10C	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-10D	Glass 120ml/4oz unpreserved	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-11A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-11B	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-11C	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-11D	Glass 120ml/4oz unpreserved	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-12A	Vial MeOH preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-12B	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-12C	Vial water preserved	A	N/A	3.3	Y	Absent	HOLD-8260HLW(14)
L1508161-12D	Glass 120ml/4oz unpreserved	A	N/A	3.3	Y	Absent	HOLD-8082()
L1508161-13A	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	-
L1508161-13B	Plastic 8oz unpreserved for Grai	A	N/A	3.3	Y	Absent	HOLD-GRAINSIZE()
L1508161-14A	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	TS(7)

*Values in parentheses indicate holding time in days



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1508161-14B	Plastic 8oz unpreserved for Grai	A	N/A	3.3	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLER(),A2-HYDRO-FGRAVEL()
L1508161-15A	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	TS(7)
L1508161-15B	Plastic 8oz unpreserved for Grai	A	N/A	3.3	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLER(),A2-HYDRO-FGRAVEL()
L1508161-16A	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	TS(7)
L1508161-16B	Plastic 8oz unpreserved for Grai	A	N/A	3.3	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLER(),A2-HYDRO-FGRAVEL()
L1508161-17A	Plastic 2oz unpreserved for TS	A	N/A	3.3	Y	Absent	TS(7)
L1508161-17B	Plastic 8oz unpreserved for Grai	A	N/A	3.3	Y	Absent	A2-HYDRO-TFINE(),A2-HYDRO-CFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-SFINE(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLER(),A2-HYDRO-FGRAVEL()

*Values in parentheses indicate holding time in days

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

Data Qualifiers

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

Project Name: AEROVOX
Project Number: 39744051.20001

Lab Number: L1508161
Report Date: 05/08/15

REFERENCES

- 12 Annual Book of ASTM Standards. (American Society for Testing and Materials) ASTM International.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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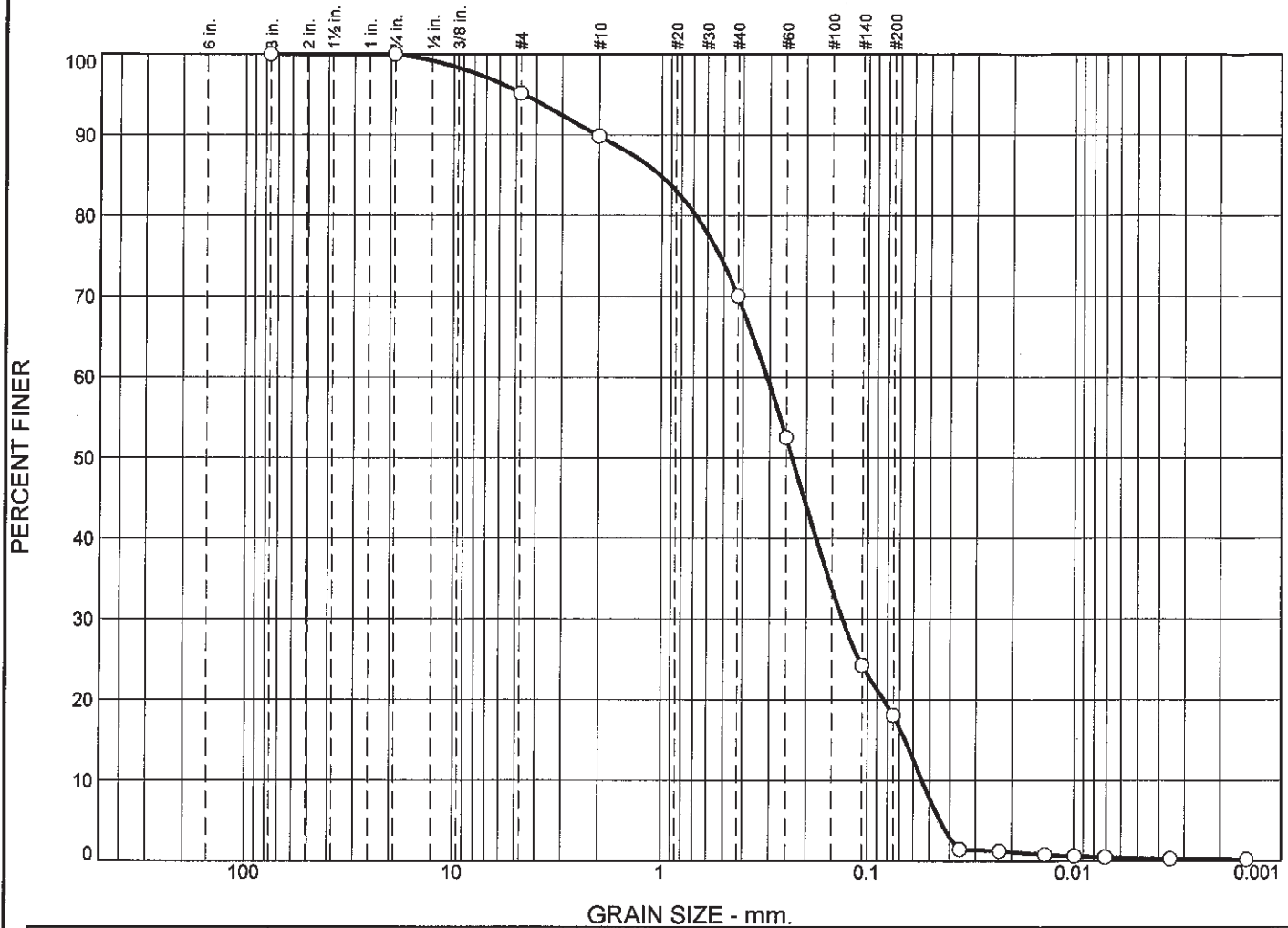
We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



ASTM D422-63

GRAIN SIZE ANALYSIS

Particle Size Distribution Report



GRAIN SIZE - mm.

%	+3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	4.8	5.4	19.7	52.0	17.8	0.3

⊗	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○			1.0166	0.3077	0.2336	0.1326	0.0656	0.0542	1.06	5.68

Material Description	USCS	AASHTO
○		

Project No.	Client:	Remarks:
Project:		
○ Source of Sample: MW-30B	Sample Number: L1508161-02	
Alpha Analytical		
Mansfield, MA		

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

5/7/2015

Location: MW-30B

Sample Number: L1508161-02

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 276.44
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
276.44	0.00	3	0.00	0.00	100.0
		0.75	0.00	0.00	100.0
		#4	13.31	0.00	95.2
		#10	14.81	0.00	89.8
		#40	54.65	0.00	70.1
		#60	48.42	0.00	52.5
		#140	78.12	0.00	24.3
		#200	17.15	0.00	18.1

Hydrometer Test Data

Hydrometer test uses material passing #200
 Percent passing #200 based upon complete sample = 18.1
 Weight of hydrometer sample = 276.44
 Automatic temperature correction
 Composite correction (fluid density and meniscus height) at 20 deg. C = 1
 Meniscus correction only = -3.0
 Specific gravity of solids = 2.65
 Hydrometer type = 151H
 Hydrometer effective depth equation: $L = 16.294964 - 0.2645 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0130	1.0140	0.0136	10.0	13.6	0.0356	1.5
5.00	20.0	1.0110	1.0120	0.0136	8.0	14.2	0.0230	1.3
15.00	20.0	1.0070	1.0080	0.0136	4.0	15.2	0.0138	0.8
30.00	20.0	1.0050	1.0060	0.0136	2.0	15.8	0.0099	0.6
60.00	20.0	1.0035	1.0045	0.0136	0.5	16.2	0.0071	0.5
250.00	20.0	1.0015	1.0025	0.0136	-1.5	16.7	0.0035	0.3
1440.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0015	0.2

Fractional Components

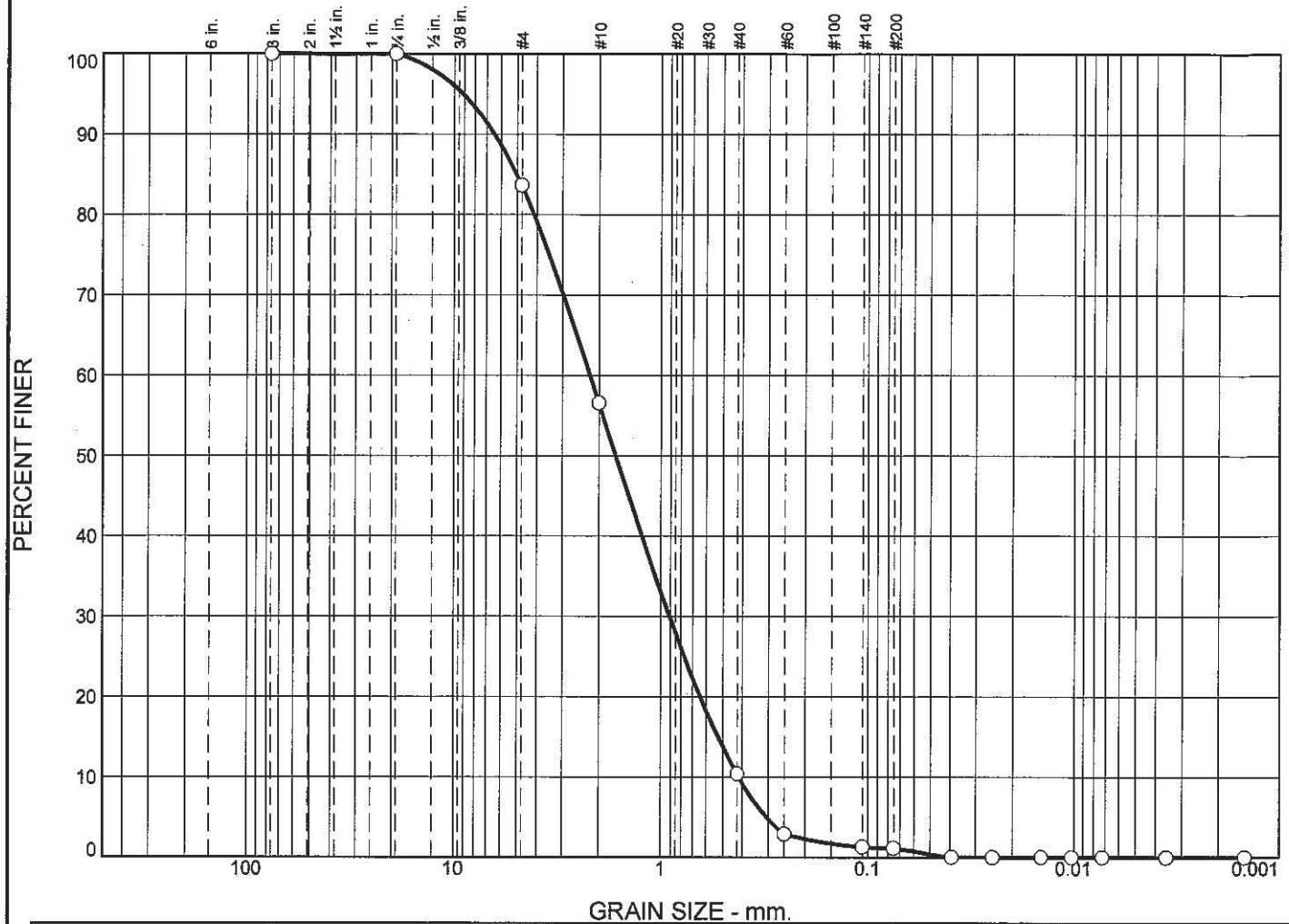
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	4.8	4.8	5.4	19.7	52.0	77.1	17.8	0.3	18.1

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.0542	0.0656	0.0832	0.1326	0.2336	0.3077	0.6803	1.0166	2.0564	4.5955

Fineness Modulus	C _u	C _c
1.58	5.68	1.06

Alpha Analytical

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	16.3	27.1	46.2	9.2	1.2	0.0

	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○			5.0221	2.2069	1.6550	0.9051	0.5252	0.4163	0.89	5.30

Material Description	USCS	AASHTO
○	SP	

<p>Project No. Client:</p> <p>Project:</p> <p>○ Source of Sample: B15GS (15-17) Sample Number: L1508161-14</p>	<p>Remarks:</p>
<p>Alpha Analytical</p> <p>Mansfield, MA</p>	

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

5/7/2015

Location: B15GS (15-17)

Sample Number: L1508161-14

USCS Classification: SP

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 211.00
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
211.00	0.00	3	0.00	0.00	100.0
		0.75	0.00	0.00	100.0
		#4	34.44	0.00	83.7
		#10	57.18	0.00	56.6
		#40	97.43	0.00	10.4
		#60	15.84	0.00	2.9
		#140	3.35	0.00	1.3
		#200	0.32	0.00	1.2

Hydrometer Test Data

Hydrometer test uses material passing #200
 Percent passing #200 based upon complete sample = 1.2
 Weight of hydrometer sample = 211.00
 Automatic temperature correction
 Composite correction (fluid density and meniscus height) at 20 deg. C = 1
 Meniscus correction only = -3.0
 Specific gravity of solids = 2.65
 Hydrometer type = 151H
 Hydrometer effective depth equation: $L = 16.294964 - 0.2645 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0025	1.0035	0.0136	-0.5	16.4	0.0391	0.0
5.00	20.0	1.0020	1.0030	0.0136	-1.0	16.6	0.0248	0.0
15.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0145	0.0
30.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0102	0.0
60.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0072	0.0
250.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0035	0.0
1440.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0015	0.0

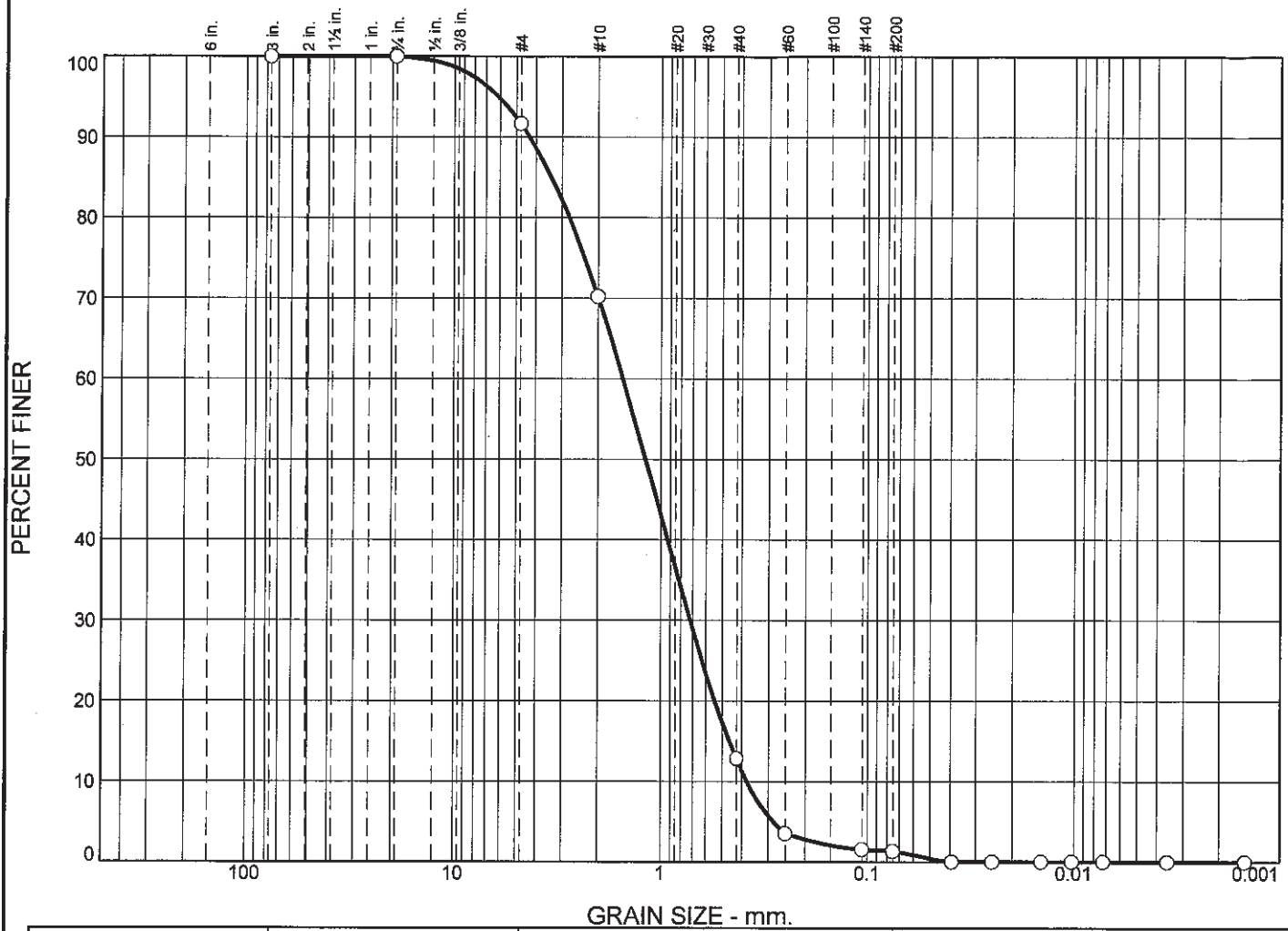
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	16.3	16.3	27.1	46.2	9.2	82.5	1.2	0.0	1.2

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.4163	0.5252	0.6405	0.9051	1.6550	2.2069	4.1236	5.0221	6.4206	9.0637

Fineness Modulus	C _u	C _c
3.95	5.30	0.89

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	8.3	21.5	57.3	11.5	1.4	0.0

LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
		3.3627	1.5133	1.1786	0.7166	0.4599	0.3772	0.90	4.01

Material Description	USCS	AASHTO
	SP	

Project No.	Client:	Remarks:
Project:		
Source of Sample: DUP B15GS (15-17)	Sample Number: WG782900-1	
Alpha Analytical		Figure
Mansfield, MA		

GRAIN SIZE DISTRIBUTION TEST DATA

5/7/2015

Location: DUP B15GS (15-17)

Sample Number: WG782900-1

USCS Classification: SP

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 153.72
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
153.72	0.00	3	0.00	0.00	100.0
		0.75	0.00	0.00	100.0
		#4	12.82	0.00	91.7
		#10	32.94	0.00	70.2
		#40	88.19	0.00	12.9
		#60	14.36	0.00	3.5
		#140	3.01	0.00	1.6
		#200	0.30	0.00	1.4

Hydrometer Test Data

Hydrometer test uses material passing #200
 Percent passing #200 based upon complete sample = 1.4
 Weight of hydrometer sample = 153.72
 Automatic temperature correction
 Composite correction (fluid density and meniscus height) at 20 deg. C = 1
 Meniscus correction only = -3.0
 Specific gravity of solids = 2.65
 Hydrometer type = 151H
 Hydrometer effective depth equation: $L = 16.294964 - 0.2645 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0020	1.0030	0.0136	-1.0	16.6	0.0393	0.0
5.00	20.0	1.0015	1.0025	0.0136	-1.5	16.7	0.0249	0.0
15.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0145	0.0
30.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0102	0.0
60.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0072	0.0
250.00	20.0	1.0005	1.0015	0.0136	-2.5	17.0	0.0036	0.0
1440.00	20.0	1.0005	1.0015	0.0136	-2.5	17.0	0.0015	0.0

Fractional Components

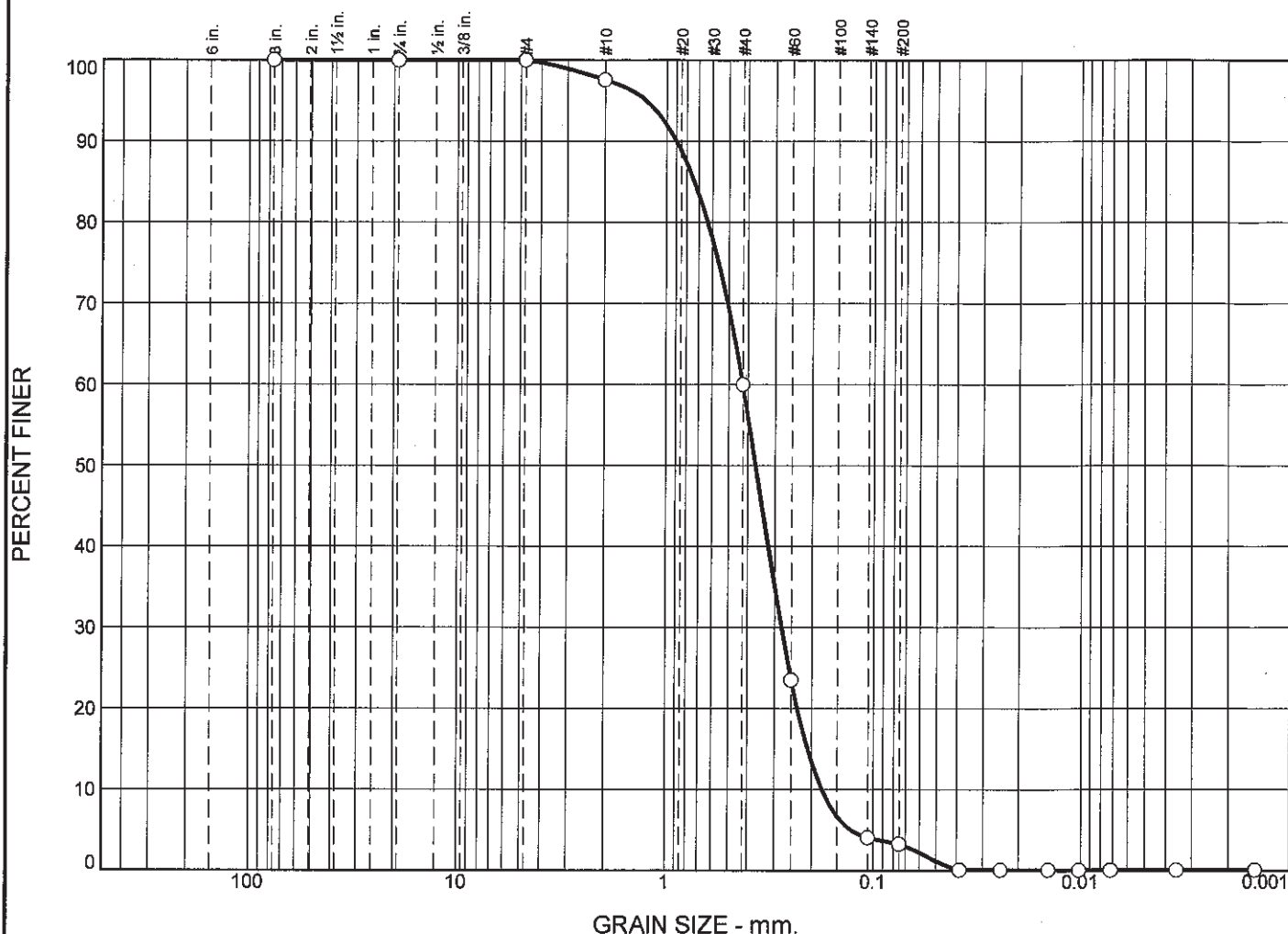
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	8.3	8.3	21.5	57.3	11.5	90.3	1.4	0.0	1.4

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.3772	0.4599	0.5414	0.7166	1.1786	1.5133	2.7528	3.3627	4.3016	6.1023

Fineness Modulus	C _u	C _c
3.53	4.01	0.90

Alpha Analytical

Particle Size Distribution Report



		% +3"		% Gravel		% Sand			% Fines	
				Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
<input type="radio"/>		0.0		0.0	0.0	2.4	37.6	56.7	3.3	0.0
<input checked="" type="checkbox"/>	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
<input type="radio"/>			0.7318	0.4250	0.3678	0.2779	0.2084	0.1776	1.02	2.39
Material Description									USCS	AASHTO
<input type="radio"/>									SP	

Project No. Project:	Client:	Remarks:
<input type="radio"/> Source of Sample: B15GS (22-24)	Sample Number: L1508161-15	
Alpha Analytical Mansfield, MA		

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

5/7/2015

Location: B15GS (22-24)

Sample Number: L1508161-15

USCS Classification: SP

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 282.12
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
282.12	0.00	3	0.00	0.00	100.0
		0.75	0.00	0.00	100.0
		#4	0.00	0.00	100.0
		#10	6.84	0.00	97.6
		#40	106.02	0.00	60.0
		#60	102.94	0.00	23.5
		#140	54.85	0.00	4.1
		#200	2.27	0.00	3.3

Hydrometer Test Data

Hydrometer test uses material passing #200
 Percent passing #200 based upon complete sample = 3.3
 Weight of hydrometer sample = 282.12
 Automatic temperature correction
 Composite correction (fluid density and meniscus height) at 20 deg. C = 1
 Meniscus correction only = -3.0
 Specific gravity of solids = 2.65
 Hydrometer type = 151H
 Hydrometer effective depth equation: $L = 16.294964 - 0.2645 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0040	1.0050	0.0136	1.0	16.0	0.0386	0.1
5.00	20.0	1.0035	1.0045	0.0136	0.5	16.2	0.0245	0.1
15.00	20.0	1.0025	1.0035	0.0136	-0.5	16.4	0.0143	0.1
30.00	20.0	1.0020	1.0030	0.0136	-1.0	16.6	0.0101	0.1
60.00	20.0	1.0020	1.0030	0.0136	-1.0	16.6	0.0072	0.1
250.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0035	0.0
1440.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0015	0.0

Fractional Components

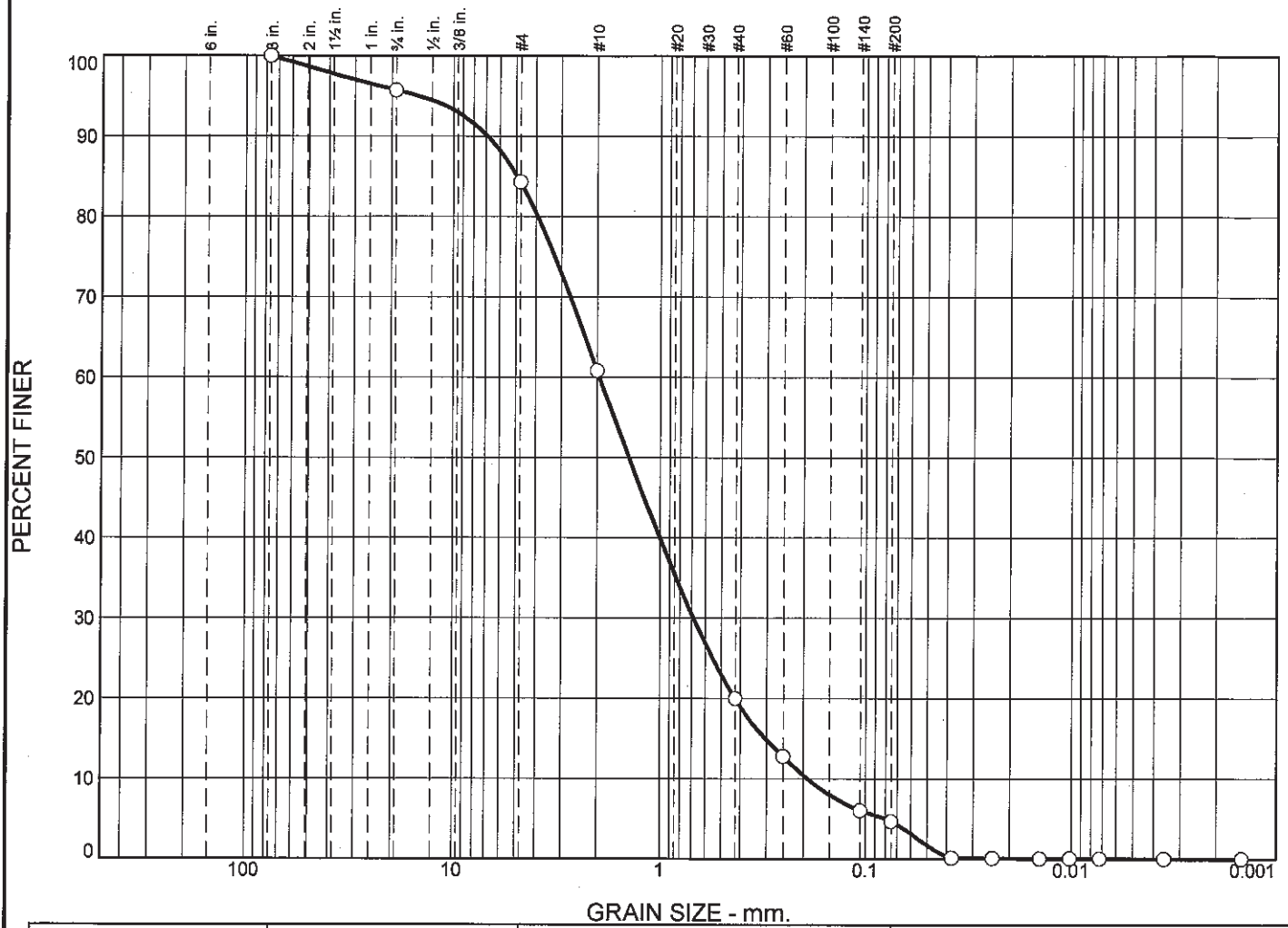
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	2.4	37.6	56.7	96.7	3.3	0.0	3.3

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.1776	0.2084	0.2339	0.2779	0.3678	0.4250	0.6309	0.7318	0.8940	1.2640

Fineness Modulus	C _u	C _c
1.88	2.39	1.02

Alpha Analytical

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	4.3	11.4	23.5	40.8	15.3	4.7	0.0

LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
		4.9304	1.9468	1.4041	0.6835	0.3026	0.1905	1.26	10.22

Material Description	USCS	AASHTO
	SW	

Project No. _____ Client: _____

Project: _____

Source of Sample: B15GS (25-29) Sample Number: L1508161-16

Alpha Analytical

Mansfield, MA

Remarks:

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

5/7/2015

Location: B15GS (25-29)

Sample Number: L1508161-16

USCS Classification: SW

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 352.04
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
352.04	0.00	3	0.00	0.00	100.0
		0.75	15.07	0.00	95.7
		#4	40.27	0.00	84.3
		#10	82.55	0.00	60.8
		#40	143.76	0.00	20.0
		#60	25.47	0.00	12.8
		#140	23.69	0.00	6.0
		#200	4.68	0.00	4.7

Hydrometer Test Data

Hydrometer test uses material passing #200
 Percent passing #200 based upon complete sample = 4.7
 Weight of hydrometer sample = 352.04
 Automatic temperature correction
 Composite correction (fluid density and meniscus height) at 20 deg. C = 1
 Meniscus correction only = -3.0
 Specific gravity of solids = 2.65
 Hydrometer type = 151H
 Hydrometer effective depth equation: $L = 16.294964 - 0.2645 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0065	1.0075	0.0136	3.5	15.4	0.0378	0.2
5.00	20.0	1.0050	1.0060	0.0136	2.0	15.8	0.0242	0.1
15.00	20.0	1.0030	1.0040	0.0136	0.0	16.3	0.0142	0.1
30.00	20.0	1.0020	1.0030	0.0136	-1.0	16.6	0.0101	0.1
60.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0072	0.0
250.00	20.0	1.0000	1.0010	0.0136	-3.0	17.1	0.0036	0.0
1440.00	20.0	1.0000	1.0010	0.0136	-3.0	17.1	0.0015	0.0

Fractional Components

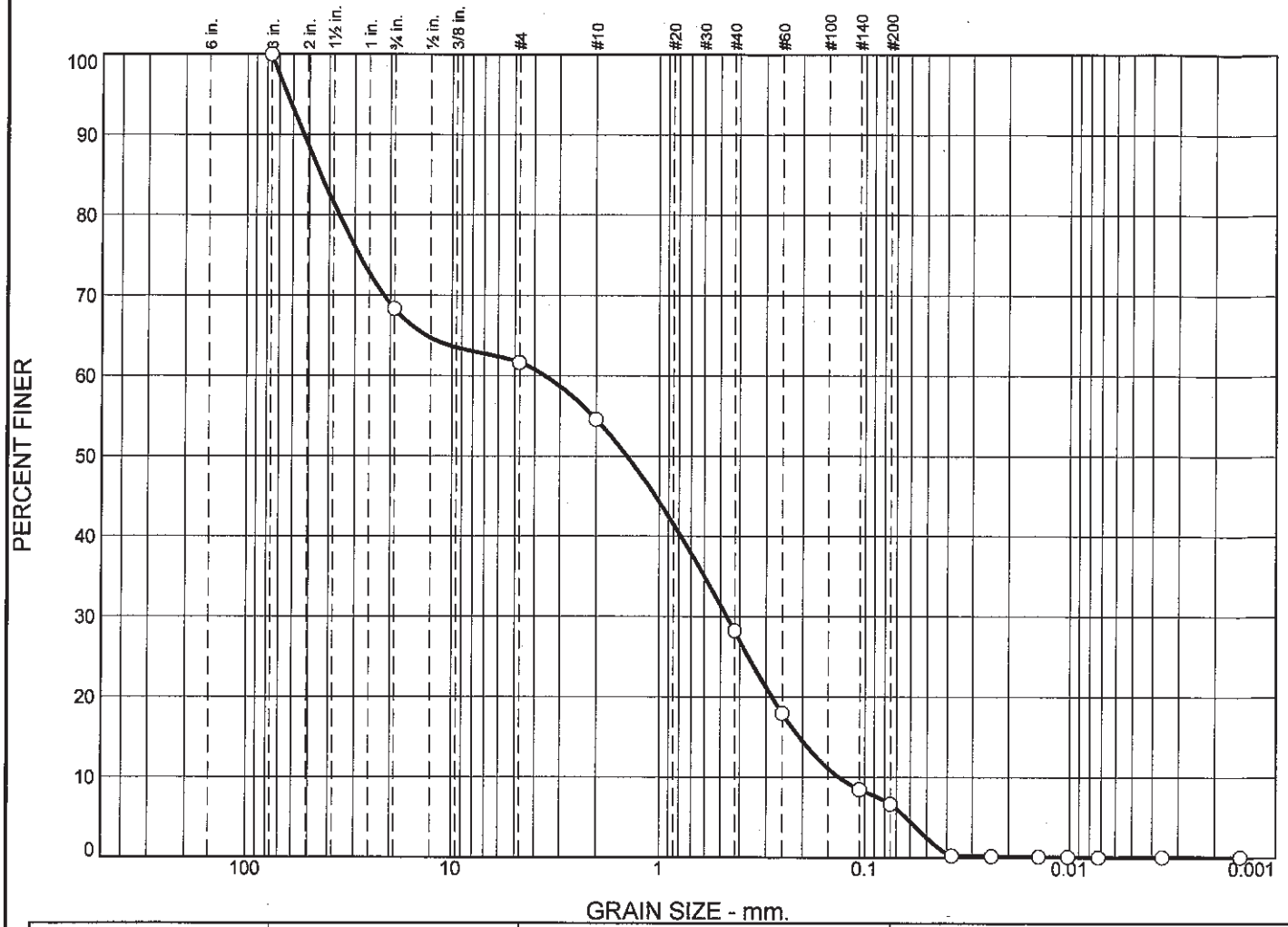
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	4.3	11.4	15.7	23.5	40.8	15.3	79.6	4.7	0.0	4.7

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.1905	0.3026	0.4251	0.6835	1.4041	1.9468	3.9120	4.9304	6.8628	14.7825

Fineness Modulus	C _u	C _c
3.69	10.22	1.26

Alpha Analytical

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	31.6	6.8	7.0	26.4	21.5	6.7	0.0

LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
		43.7812	3.5403	1.4242	0.4640	0.2068	0.1328	0.46	26.67

Material Description	USCS	AASHTO

Project No.	Client:
Project:	
Source of Sample: B15GS (30-32)	Sample Number: L1508161-17
Alpha Analytical	
Mansfield, MA	

Remarks:

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

5/7/2015

Location: B15GS (30-32)

Sample Number: L1508161-17

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 379.28

Tare Wt. = 0.00

Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
379.28	0.00	3	0.00	0.00	100.0
		0.75	120.03	0.00	68.4
		#4	25.46	0.00	61.6
		#10	26.86	0.00	54.6
		#40	99.86	0.00	28.2
		#60	38.90	0.00	18.0
		#140	36.03	0.00	8.5
		#200	6.90	0.00	6.7

Hydrometer Test Data

Hydrometer test uses material passing #200

Percent passing #200 based upon complete sample = 6.7

Weight of hydrometer sample = 379.28

Automatic temperature correction

Composite correction (fluid density and meniscus height) at 20 deg. C = 1

Meniscus correction only = -3.0

Specific gravity of solids = 2.65

Hydrometer type = 151H

Hydrometer effective depth equation: $L = 16.294964 - 0.2645 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	20.0	1.0065	1.0075	0.0136	3.5	15.4	0.0378	0.2
5.00	20.0	1.0050	1.0060	0.0136	2.0	15.8	0.0242	0.2
15.00	20.0	1.0030	1.0040	0.0136	0.0	16.3	0.0142	0.1
30.00	20.0	1.0020	1.0030	0.0136	-1.0	16.6	0.0101	0.1
60.00	20.0	1.0010	1.0020	0.0136	-2.0	16.8	0.0072	0.1
250.00	20.0	1.0000	1.0010	0.0136	-3.0	17.1	0.0036	0.0
1440.00	20.0	1.0000	1.0010	0.0136	-3.0	17.1	0.0015	0.0

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	31.6	6.8	38.4	7.0	26.4	21.5	54.9	6.7	0.0	6.7

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.1328	0.2068	0.2803	0.4640	1.4242	3.5403	35.6851	43.7812	52.9896	63.6524

Fineness Modulus	C _u	C _c
4.54	26.67	0.46

Alpha Analytical

Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 2

ALPHA Job #: 150816

Date Rec'd in Lab: 4-2-15

Project Name: AeroVox

Project Information

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

8 Walkup Drive
Westboro, MA 01581
Tel: 508-998-9220

Client Information

Client: AECOM

Address: 1155 Elm St Suite 401

Manchester, NH 03101

Phone: (603) 606-4800

Email: jvd@th.leclan@aecom.com

Project Location: New Bedford, MA

Project #: 39744057.2000\$ 2001

Project Manager: J. Leclair/M. Wade

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: 4-28-15

Additional Project Information:

CVOC only on 82606

Report Information - Data Deliverables

ADEX EMAIL

Regulatory Requirements & Project Information Requirements

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

Billing Information

Same as Client Info

PO #:

Criteria

ANALYSIS	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAB <input type="checkbox"/> PPT3	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
TRIP BLANK						Filteration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do	2
MW-30B (1-3)							2
MW-30B (8-10)							5
MW-30B (13-15)							5
MW-30B (18-20)							5
MW-30B (23-25)							4
MW-31B (8-10)							4
MW-31B (13-15)							4
MW-31B (18-20)							4
MW-31B (23-25)							4

- Container Type
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 E= Encore
 D= BOD Bottle
- Preservative
 A= None
 B= HCl
 C= HNO3
 D= H2SO4
 E= NaOH
 F= MeOH
 G= NaHSO4
 H= Na2S2O8
 I= Ascorbic Acid
 J= NH4Cl
 K= Zn Acetate
 O= Other

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side. FORM NO: 01501 (rev. 11/08/2012)

Relinquished By:	Date/Time	Received By:	Date/Time
[Signature]	4/2/15 1415	AAI	4/2/15 1415
[Signature]	4/2/15 1835	[Signature]	4/2/15 1835
[Signature]	4/2/15 1835	[Signature]	4/2/15 1835

CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA Job #: **615-08161**

Date Rec'd In Lab: **4-21-15**

Report Information - Data Deliverables

Project Information
 Project Name: **Aerovox**
 Project Location: **New Bedford, MA**
 Project #: **39744051.2000\$ 300**
 Project Manager: **J. LeClair / M. Wade**
 ALPHA Quote #: _____
 Turn-Around Time _____

Client Information
 Client: **AECOM**
 Address: **1155 Elm St, Suite 401**
Manchester, NH 03101
 Phone: **(603) 606-4800**
 Email: **julie.th.leclair@aecom.com**

Additional Project Information:
CVOC only on 8260c

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS	CVOC: <input type="checkbox"/> 8260c <input type="checkbox"/> 824 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	YPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	Grain Size	Total Colids	P/B + FS	SAMPLE INFO Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do	PID	Sample Comments	TOTAL # BOTTLES
		Date	Time																		
08161-1	MW-31B (28-30)	4.20.15	1430	S	JKH	B															4
12	MW-31B (31-33)	4.20.15	1500	S	JKH	B															4
13	B15GS (4-7)	4.21.15	1120	S	JKH																2
14	B15GS (15-17)		1125	S	JKH																2
15	B15GS (22-24)		1130	S	JKH																2
16	B15GS (25-29)		1135	S	JKH																2
17	B15GS (30-32)		1140	S	JKH																2

Container Type: **V**
 Preservative: **P/O**
 Date/Time: **4/21/15 1415**
 Received By: **APR ALC**

Relinquished By: **Jeffrey Hanchmon**
 Date/Time: **4/21/15 1435**
 Received By: **Michelle Chry**

Relinquished By: **Jeffrey Hanchmon**
 Date/Time: **4/21/15 1435**
 Received By: **Michelle Chry**



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Westboro, MA 01581
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320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

CHAIN OF CUSTODY

PAGE 1 OF 2

Project Information

Project Name: **Aerovox**

Project Location: **New Bedford, MA**

Project #: **39744051.2000F 2001**

Project Manager: **J. Leclair/M. Wade**

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: **4-28-15**

Additional Project Information:

CVOC only on 82606

Client Information

Client: **AECOM**

Address: **1155 Elm St, Suite 401**

Manchester, NH 03101

Phone: **(603) 606-4800**

Email: **judith.leclair@aecom.com**

Report Information - Data Deliverables

ADEX EMAIL

Regulatory Requirements & Project Information Requirements

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

Billing Information

Same as Client info PO #:

ALPHA Job #: **L1508161**

Serial No: 05081515:54

ANALYSIS	CVOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAB <input type="checkbox"/> PP13	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
								Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do	
								Preservation <input type="checkbox"/> Lab to do	

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials
08161-01	TRIP BLANK	4.20.15		TB	JKH
02	MW-30B (1-3)	1110		S	JKH
03	MW-30B (8-10)	1115		S	JKH
04	MW-30B (13-15)	1125		S	JKH
05	MW-30B (18-20)	1125		S	JKH
06	MW-30B (23-25)	1150		S	JKH
07	MW-31B (8-10)	1320		S	JKH
08	MW-31B (13-15)	1325		S	JKH
09	MW-31B (18-20)	1335		S	JKH
10	MW-31B (23-25)	1400		S	JKH

Container Type	Preservative	Relinquished By:	Date/Time	Received By:	Date/Time
P	A	<i>[Signature]</i>	4/21/15 1415	AAL	4/21/15 1415
V	F	<i>[Signature]</i>	4/21/15 1835	Luchina Cmy	4-21-15 1835

Container Type	Preservative	Relinquished By:	Date/Time	Received By:	Date/Time
P	A	<i>[Signature]</i>	4/21/15 1415	AAL	4/21/15 1415
V	F	<i>[Signature]</i>	4/21/15 1835	Luchina Cmy	4-21-15 1835

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



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Mansfield, MA 02048
Tel: 508-822-9300

CHAIN OF CUSTODY

PAGE 2 OF 2

Serial No: 05081515:54

Date Rec'd in Lab: 4-21-15

ALPHA Job #: 415 08161

Project Information

Project Name: Aerovox

Project Location: New Bedford, MA

Project #: 39744051.2000F pool

Project Manager: J. LeClair / M. Wade

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: 4-28-15

Additional Project Information:

C VOC only on 8260C

Client Information

Client: AECOM

Address: 1155 Elm St, Suite 401

Manchester, NH 03101

Phone: (603) 606-4800

Email: judith.leclair@aecom.com

Report Information - Data Deliverables

ADEX EMAIL

PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS	CVOC: <input type="checkbox"/> 8260C <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAB <input type="checkbox"/> RCP 13	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
08161-11	MW-31B (28-30)							PCB + TS Grain Size Total Solids	4
08161-12	MW-31B (31-33)								4
08161-13	B15GS (4-7)								2
08161-14	B15GS (15-17)								2
08161-15	B15GS (22-24)								2
08161-16	B15GS (25-29)								2
08161-17	B15GS (30-32)								2

Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Container Type	Preservative	Date/Time	Received By:
08161-11	4-20-15	1430	S	JKH	V	F/O	4/21/15 1400	4/21/15 1400
08161-12	4-20-15	1500	S	JKH				4-21-15 1835
08161-13	4-21-15	1120	S	JKH				
08161-14		1125	S	JKH				
08161-15		1130	S	JKH				
08161-16		1135	S	JKH				
08161-17		1140	S	JKH				

Container Type	Preservative	Date/Time	Received By:
V	F/O	4/21/15 1400	4/21/15 1400
		4/21/15 1835	4/21/15 1835

Relinquished By: *Stephany A. Hawthorn*
 Date/Time: 4/21/15 1415
 Received By: *Judith LeClair*
 Date/Time: 4/21/15 1835

- Container Type**
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 D= BOD Bottle
- Preservative**
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= NaOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

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

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1508161

Instrument ID: Voal04.i Calibration Date: 25-APR-2015 Time: 07:08

Lab File ID: 0425A01 Init. Calib. Date(s): 17-MAR-2 17-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 16:11 19:42

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.19895	.15681	.1	-21	20	F
chloromethane	.36242	.35747	.1	-1	20	
vinyl chloride	.29843	.31636	.1	6	20	
bromomethane	.18153	.17885	.1	-1	20	
chloroethane	.16051	.18273	.1	14	20	
trichlorofluoromethane	.30089	.35923	.1	19	20	
ethyl ether	.10611	.11178	.05	5	20	
1,1,-dichloroethene	.19722	.22787	.1	16	20	
carbon disulfide	.66639	.7297	.1	10	20	
methylene chloride	.27174	.28259	.1	4	20	
acetone	.05249	.07757	.1	48	20	F
trans-1,2-dichloroethene	.26438	.2858	.1	8	20	
methyl tert butyl ether	.55848	.59321	.1	6	20	
Diisopropyl Ether	.99228	1.1379	.05	15	20	
1,1-dichloroethane	.51554	.57159	.2	11	20	
Ethyl-Tert-Butyl-Ether	.79736	.87871	.05	10	20	
cis-1,2-dichloroethene	.28438	.30628	.1	8	20	
2,2-dichloropropane	.37123	.41824	.05	13	20	
bromochloromethane	.12648	.13372	.05	6	20	
chloroform	.46251	.49857	.2	8	20	
carbontetrachloride	.34652	.38742	.1	12	20	
tetrahydrofuran	.06789	.07828	.05	15	20	
1,1,1-trichloroethane	.39503	.44091	.1	12	20	
2-butanone	.09271	.10637	.1	15	20	F
1,1-dichloropropene	.35038	.39281	.05	12	20	
benzene	1.0171	1.1027	.5	8	20	
Tertiary-Amyl Methyl Ether	.59007	.62239	.05	5	20	
1,2-dichloroethane	.31101	.33863	.1	9	20	
trichloroethene	.27797	.3033	.2	9	20	
dibromomethane	.13817	.14886	.05	8	20	
1,2-dichloropropane	.28947	.31521	.1	9	20	
bromodichloromethane	.33336	.36359	.2	9	20	
1,4-dioxane	.5000	.4799	.05	-4	20	
cis-1,3-dichloropropene	.38653	.41811	.2	8	20	
toluene	.89291	.97594	.4	9	20	
tetrachloroethene	.38138	.43641	.2	14	20	
4-methyl-2-pentanone	.07042	.07486	.1	6	20	F
trans-1,3-dichloropropene	.44699	.48646	.1	9	20	

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1508161

Instrument ID: Voal04.i Calibration Date: 25-APR-2015 Time: 07:08

Lab File ID: 0425A01 Init. Calib. Date(s): 17-MAR-2 17-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 16:11 19:42

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.22954	.24499	.1	7	20
chlorodibromomethane	.34624	.36212	.1	5	20
1,3-dichloropropane	.4479	.48372	.05	8	20
1,2-dibromoethane	.27006	.28169	.1	4	20
2-hexanone	.17264	.20192	.1	17	20
chlorobenzene	.99797	1.0732	.5	8	20
ethyl benzene	1.6911	1.8380	.1	9	20
1,1,1,2-tetrachloroethane	.35978	.38249	.05	6	20
p/m xylene	.66294	.72423	.1	9	20
o xylene	.62134	.68482	.3	10	20
styrene	1.0041	1.1176	.3	11	20
bromoform	.39113	.38968	.1	0	20
isopropylbenzene	3.2682	3.5208	.1	8	20
bromobenzene	.82422	.85652	.05	4	20
n-propylbenzene	3.8706	4.2817	.05	11	20
1,1,2,2,-tetrachloroethane	.6483	.66803	.3	3	20
2-chlorotoluene	2.3634	2.5022	.05	6	20
1,2,3-trichloropropane	.48226	.50498	.05	5	20
1,3,5-trimethylbenzene	2.7627	2.9934	.05	8	20
4-chorotoluene	2.3266	2.4971	.05	7	20
tert-butylbenzene	2.3260	2.4950	.05	7	20
1,2,4-trimethylbenzene	2.7311	2.9669	.05	9	20
sec-butylbenzene	3.5220	3.9490	.05	12	20
p-isopropyltoluene	2.9385	3.2349	.05	10	20
1,3-dichlorobenzene	1.6036	1.7081	.6	7	20
1,4-dichlorobenzene	1.6024	1.6959	.5	6	20
n-butylbenzene	2.7486	3.1748	.05	16	20
1,2-dichlorobenzene	1.4349	1.5246	.4	6	20
1,2-dibromo-3-chloropropane	.09686	.09301	.05	-4	20
hexachlorobutadiene	.45805	.50182	.05	10	20
1,2,4-trichlorobenzene	.94713	1.0260	.2	8	20
naphthalene	1.9829	1.9481	.05	-2	20
1,2,3-trichlorobenzene	.8709	.9107	.05	5	20
dibromofluoromethane	.25859	.26279	.05	2	30
1,2-dichloroethane-d4	.23476	.24133	.05	3	30
toluene-d8	1.3085	1.3347	.05	2	30
4-bromofluorobenzene	.91151	.91976	.05	1	30

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1508161

Instrument ID: Voal04.i Calibration Date: 26-APR-2015 Time: 11:52

Lab File ID: 0426A01 Init. Calib. Date(s): 17-MAR-2 17-MAR-2

Sample No: wg779473-4,31,5 Init. Calib. Times : 16:11 19:42

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.19895	.15803	.1	-21	20	F
chloromethane	.36242	.33537	.1	-7	20	
vinyl chloride	.29843	.31278	.1	5	20	
bromomethane	.18153	.17152	.1	-6	20	
chloroethane	.16051	.18172	.1	13	20	
trichlorofluoromethane	.30089	.35122	.1	17	20	
ethyl ether	.10611	.10964	.05	3	20	
1,1,-dichloroethene	.19722	.21999	.1	12	20	
carbon disulfide	.66639	.70776	.1	6	20	
methylene chloride	.27174	.27968	.1	3	20	
acetone	.05249	.07329	.1	40	20	F
trans-1,2-dichloroethene	.26438	.27981	.1	6	20	
methyl tert butyl ether	.55848	.57624	.1	3	20	
Diisopropyl Ether	.99228	1.0862	.05	9	20	
1,1-dichloroethane	.51554	.55984	.2	9	20	
Ethyl-Tert-Butyl-Ether	.79736	.84837	.05	6	20	
cis-1,2-dichloroethene	.28438	.29924	.1	5	20	
2,2-dichloropropane	.37123	.41406	.05	12	20	
bromochloromethane	.12648	.13212	.05	4	20	
chloroform	.46251	.48572	.2	5	20	
carbontetrachloride	.34652	.38254	.1	10	20	
tetrahydrofuran	.06789	.07657	.05	13	20	
1,1,1-trichloroethane	.39503	.43326	.1	10	20	
2-butanone	.09271	.10251	.1	11	20	F
1,1-dichloropropene	.35038	.38392	.05	10	20	
benzene	1.0171	1.0825	.5	6	20	
Tertiary-Amyl Methyl Ether	.59007	.61078	.05	4	20	
1,2-dichloroethane	.31101	.33397	.1	7	20	
trichloroethene	.27797	.3002	.2	8	20	
dibromomethane	.13817	.14606	.05	6	20	
1,2-dichloropropane	.28947	.30899	.1	7	20	
bromodichloromethane	.33336	.35252	.2	6	20	
1,4-dioxane	.5000	.4724	.05	-6	20	
cis-1,3-dichloropropene	.38653	.41329	.2	7	20	
toluene	.89291	.94881	.4	6	20	
tetrachloroethene	.38138	.42582	.2	12	20	
4-methyl-2-pentanone	.07042	.07445	.1	6	20	F
trans-1,3-dichloropropene	.44699	.47807	.1	7	20	

FORM VII MCP-8260HLW-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1508161

Instrument ID: Voal04.i Calibration Date: 26-APR-2015 Time: 11:52

Lab File ID: 0426A01 Init. Calib. Date(s): 17-MAR-2 17-MAR-2

Sample No: wg779473-4,31,5 Init. Calib. Times : 16:11 19:42

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.22954	.24413	.1	6	20
chlorodibromomethane	.34624	.35927	.1	4	20
1,3-dichloropropane	.4479	.46998	.05	5	20
1,2-dibromoethane	.27006	.27584	.1	2	20
2-hexanone	.17264	.20863	.1	21	20
chlorobenzene	.99797	1.0634	.5	7	20
ethyl benzene	1.6911	1.8205	.1	8	20
1,1,1,2-tetrachloroethane	.35978	.38052	.05	6	20
p/m xylene	.66294	.71145	.1	7	20
o xylene	.62134	.67009	.3	8	20
styrene	1.0041	1.0970	.3	9	20
bromoform	.39113	.41989	.1	7	20
isopropylbenzene	3.2682	3.4372	.1	5	20
bromobenzene	.82422	.832	.05	1	20
n-propylbenzene	3.8706	4.1400	.05	7	20
1,1,2,2,-tetrachloroethane	.6483	.64769	.3	0	20
2-chlorotoluene	2.3634	2.4468	.05	4	20
1,2,3-trichloropropane	.48226	.48628	.05	1	20
1,3,5-trimethylbenzene	2.7627	2.9046	.05	5	20
4-chorotoluene	2.3266	2.4844	.05	7	20
tert-butylbenzene	2.3260	2.4601	.05	6	20
1,2,4-trimethylbenzene	2.7311	2.9111	.05	7	20
sec-butylbenzene	3.5220	3.7793	.05	7	20
p-isopropyltoluene	2.9385	3.1811	.05	8	20
1,3-dichlorobenzene	1.6036	1.6977	.6	6	20
1,4-dichlorobenzene	1.6024	1.6760	.5	5	20
n-butylbenzene	2.7486	3.0745	.05	12	20
1,2-dichlorobenzene	1.4349	1.5002	.4	5	20
1,2-dibromo-3-chloropropane	.09686	.09032	.05	-7	20
hexachlorobutadiene	.45805	.51077	.05	12	20
1,2,4-trichlorobenzene	.94713	1.0318	.2	9	20
naphthalene	1.9829	1.9269	.05	-3	20
1,2,3-trichlorobenzene	.8709	.90565	.05	4	20
dibromofluoromethane	.25859	.25793	.05	0	30
1,2-dichloroethane-d4	.23476	.23927	.05	2	30
toluene-d8	1.3085	1.3145	.05	0	30
4-bromofluorobenzene	.91151	.89234	.05	-2	30

F

FORM VII MCP-8260HLW-10

Sub-Slab Soil Vapor Sample Analytical Report



ANALYTICAL REPORT

Lab Number:	L1508189
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX/TITLEIST VI
Project Number:	39744051.10006
Report Date:	04/28/15

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1508189-01	AX-VIT-SS01	SOIL_VAPOR	NEW BEDFORD, MA	04/19/15 09:52	04/21/15
L1508189-02	AX-VIT-SS02	SOIL_VAPOR	NEW BEDFORD, MA	04/19/15 10:38	04/21/15
L1508189-03	AX-VIT-SS03	SOIL_VAPOR	NEW BEDFORD, MA	04/19/15 11:05	04/21/15
L1508189-04	AX-VIT-SS04	SOIL_VAPOR	NEW BEDFORD, MA	04/19/15 11:28	04/21/15



Project Name: AEROVOX/TITLEIST VI

Lab Number: L1508189

Project Number: 39744051.10006

Report Date: 04/28/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
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Case Narrative (continued)

MCP Related Narratives

Canisters were released from the laboratory on April 16, 2015. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to questions E b/l:

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

Samples L1508189-01, -03 and -04 have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples.

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

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 04/28/15

AIR

Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

SAMPLE RESULTS

Lab ID: L1508189-01 D
 Client ID: AX-VIT-SS01
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15
 Analytical Date: 04/25/15 01:39
 Analyst: RY

Date Collected: 04/19/15 09:52
 Date Received: 04/21/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.500	--	ND	1.28	--		2.5
1,1-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,1-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,2-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
1,1,1-Trichloroethane	ND	0.500	--	ND	2.73	--		2.5
Trichloroethene	2.23	0.500	--	12.0	2.69	--		2.5
Tetrachloroethene	ND	0.500	--	ND	3.39	--		2.5
Chlorobenzene	ND	0.500	--	ND	2.30	--		2.5
1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5
1,2,3-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140



Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

SAMPLE RESULTS

Lab ID: L1508189-02
 Client ID: AX-VIT-SS02
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15
 Analytical Date: 04/25/15 02:11
 Analyst: RY

Date Collected: 04/19/15 10:38
 Date Received: 04/21/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	2.43	0.200	--	13.1	1.07	--		1
Tetrachloroethene	0.356	0.200	--	2.41	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
1,3-Dichlorobenzene	0.340	0.200	--	2.04	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	87		60-140



Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

SAMPLE RESULTS

Lab ID: L1508189-03 D
 Client ID: AX-VIT-SS03
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15
 Analytical Date: 04/25/15 02:42
 Analyst: RY

Date Collected: 04/19/15 11:05
 Date Received: 04/21/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.500	--	ND	1.28	--		2.5
1,1-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,1-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,2-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
1,1,1-Trichloroethane	ND	0.500	--	ND	2.73	--		2.5
Trichloroethene	ND	0.500	--	ND	2.69	--		2.5
Tetrachloroethene	ND	0.500	--	ND	3.39	--		2.5
Chlorobenzene	ND	0.500	--	ND	2.30	--		2.5
1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5
1,2,3-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	88		60-140



Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

SAMPLE RESULTS

Lab ID: L1508189-04 D
 Client ID: AX-VIT-SS04
 Sample Location: NEW BEDFORD, MA
 Matrix: Soil_Vapor
 Analytical Method: 101,TO-15
 Analytical Date: 04/25/15 03:14
 Analyst: RY

Date Collected: 04/19/15 11:28
 Date Received: 04/21/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.500	--	ND	1.28	--		2.5
1,1-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,1-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,2-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
1,1,1-Trichloroethane	ND	0.500	--	ND	2.73	--		2.5
Trichloroethene	1.36	0.500	--	7.31	2.69	--		2.5
Tetrachloroethene	0.538	0.500	--	3.65	3.39	--		2.5
Chlorobenzene	ND	0.500	--	ND	2.30	--		2.5
1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5
1,2,3-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	80		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	82		60-140



Project Name: AEROVOX/TITLEIST VI

Lab Number: L1508189

Project Number: 39744051.10006

Report Date: 04/28/15

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15

Analytical Date: 04/24/15 17:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01-04 Batch: WG779024-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 Batch: WG779024-3										
Vinyl chloride	95	-	-	-	70-130	-	-	-	-	70-130
Bromomethane	99	-	-	-	70-130	-	-	-	-	70-130
Acetone	103	-	-	-	50-150	-	-	-	-	50-150
1,1-Dichloroethene	90	-	-	-	70-130	-	-	-	-	70-130
Methylene chloride	92	-	-	-	70-130	-	-	-	-	70-130
trans-1,2-Dichloroethene	88	-	-	-	70-130	-	-	-	-	70-130
1,1-Dichloroethane	97	-	-	-	70-130	-	-	-	-	70-130
Methyl tert butyl ether	96	-	-	-	70-130	-	-	-	-	70-130
2-Butanone	88	-	-	-	70-130	-	-	-	-	70-130
cis-1,2-Dichloroethene	107	-	-	-	70-130	-	-	-	-	70-130
Chloroform	99	-	-	-	70-130	-	-	-	-	70-130
1,2-Dichloroethane	97	-	-	-	70-130	-	-	-	-	70-130
1,1,1-Trichloroethane	87	-	-	-	70-130	-	-	-	-	70-130
Benzene	86	-	-	-	70-130	-	-	-	-	70-130
Carbon tetrachloride	89	-	-	-	70-130	-	-	-	-	70-130
1,2-Dichloropropane	87	-	-	-	70-130	-	-	-	-	70-130
Bromodichloromethane	86	-	-	-	70-130	-	-	-	-	70-130
1,4-Dioxane	87	-	-	-	50-150	-	-	-	-	50-150
Trichloroethene	94	-	-	-	70-130	-	-	-	-	70-130
cis-1,3-Dichloropropene	93	-	-	-	70-130	-	-	-	-	70-130
4-Methyl-2-pentanone	82	-	-	-	70-130	-	-	-	-	70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 Batch: WG779024-3												
trans-1,3-Dichloropropene	76	-	-	-	70-130	-	-	-	-	-	-	70-130
1,1,2-Trichloroethane	92	-	-	-	70-130	-	-	-	-	-	-	70-130
Toluene	100	-	-	-	70-130	-	-	-	-	-	-	70-130
Dibromochloromethane	102	-	-	-	70-130	-	-	-	-	-	-	70-130
1,2-Dibromoethane	103	-	-	-	70-130	-	-	-	-	-	-	70-130
Tetrachloroethene	106	-	-	-	70-130	-	-	-	-	-	-	70-130
Chlorobenzene	103	-	-	-	70-130	-	-	-	-	-	-	70-130
Ethylbenzene	102	-	-	-	70-130	-	-	-	-	-	-	70-130
p/m-Xylene	100	-	-	-	70-130	-	-	-	-	-	-	70-130
Bromoform	104	-	-	-	70-130	-	-	-	-	-	-	70-130
Styrene	101	-	-	-	70-130	-	-	-	-	-	-	70-130
1,1,2,2-Tetrachloroethane	100	-	-	-	70-130	-	-	-	-	-	-	70-130
o-Xylene	101	-	-	-	70-130	-	-	-	-	-	-	70-130
1,3-Dichlorobenzene	109	-	-	-	70-130	-	-	-	-	-	-	70-130
1,4-Dichlorobenzene	107	-	-	-	70-130	-	-	-	-	-	-	70-130
1,2-Dichlorobenzene	105	-	-	-	70-130	-	-	-	-	-	-	70-130
1,2,4-Trichlorobenzene	114	-	-	-	50-150	-	-	-	-	-	-	50-150
Naphthalene	102	-	-	-	50-150	-	-	-	-	-	-	50-150
1,2,3-Trichlorobenzene	107	-	-	-	70-130	-	-	-	-	-	-	70-130
Hexachlorobutadiene	108	-	-	-	50-150	-	-	-	-	-	-	50-150



Lab Duplicate Analysis

Batch Quality Control

Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG779024-5 QC Sample: L1508187-01 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Acetone	4.00	4.01	ppbV	0		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	42.8	42.2	ppbV	1		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	18.2	18.3	ppbV	1		25



Lab Duplicate Analysis Batch Quality Control

Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG779024-5 QC Sample: L1508187-01 Client ID: DUP Sample					
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	241	244	ppbV	1	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25



Lab Duplicate Analysis

Batch Quality Control

Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG779024-5 QC Sample: L1508187-01 Client ID: DUP Sample					
Naphthalene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25



Serial_No:04281514:46
 Lab Number: L1508189
 Report Date: 04/28/15

Project Name: AEROVOX/TITLEIST VI
 Project Number: 39744051.10006

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1508189-01	AX-VIT-SS01	0098	#20 SV	04/16/15	202444		-	-	-	Pass	100	94	6
L1508189-01	AX-VIT-SS01	109	2.7L Can	04/16/15	202444	L1507392-01	Pass	-30.0	-4.0	-	-	-	-
L1508189-02	AX-VIT-SS02	0069	#30 SV	04/16/15	202444		-	-	-	Pass	100	102	2
L1508189-02	AX-VIT-SS02	200	2.7L Can	04/16/15	202444	L1507392-01	Pass	-30.0	-7.7	-	-	-	-
L1508189-03	AX-VIT-SS03	0289	#90 SV	04/16/15	202444		-	-	-	Pass	100	103	3
L1508189-03	AX-VIT-SS03	2042	2.7L Can	04/16/15	202444	L1507392-01	Pass	-29.6	-4.7	-	-	-	-
L1508189-04	AX-VIT-SS04	0293	#20 SV	04/16/15	202444		-	-	-	Pass	100	97	3
L1508189-04	AX-VIT-SS04	232	2.7L Can	04/16/15	202444	L1507392-01	Pass	-30.0	-15.0	-	-	-	-



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1507392
Report Date: 04/28/15

Air Canister Certification Results

Lab ID: L1507392-01
 Client ID: CAN 2039 SHELF 14
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 04/14/15 16:30
 Analyst: RY

Date Collected: 04/13/15 20:26
 Date Received: 04/14/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	2.50	--	ND	4.71	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1507392
Report Date: 04/28/15

Air Canister Certification Results

Lab ID: L1507392-01
 Client ID: CAN 2039 SHELF 14
 Sample Location:

Date Collected: 04/13/15 20:26
 Date Received: 04/14/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	0.200	--	ND	0.704	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1507392
Report Date: 04/28/15

Air Canister Certification Results

Lab ID: L1507392-01 Date Collected: 04/13/15 20:26
 Client ID: CAN 2039 SHELF 14 Date Received: 04/14/15
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1507392
Report Date: 04/28/15

Air Canister Certification Results

Lab ID: L1507392-01
 Client ID: CAN 2039 SHELF 14
 Sample Location:

Date Collected: 04/13/15 20:26
 Date Received: 04/14/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1507392
Report Date: 04/28/15

Air Canister Certification Results

Lab ID: L1507392-01 Date Collected: 04/13/15 20:26
 Client ID: CAN 2039 SHELF 14 Date Received: 04/14/15
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	88		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1507392
Report Date: 04/28/15

Air Canister Certification Results

Lab ID: L1507392-01
 Client ID: CAN 2039 SHELF 14
 Sample Location:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 04/14/15 16:30
 Analyst: RY

Date Collected: 04/13/15 20:26
 Date Received: 04/14/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1507392
Report Date: 04/28/15

Air Canister Certification Results

Lab ID: L1507392-01
 Client ID: CAN 2039 SHELF 14
 Sample Location:

Date Collected: 04/13/15 20:26
 Date Received: 04/14/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1507392
Report Date: 04/28/15

Air Canister Certification Results

Lab ID: L1507392-01
 Client ID: CAN 2039 SHELF 14
 Sample Location:

Date Collected: 04/13/15 20:26
 Date Received: 04/14/15
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140



Project Name: AEROVOX/TITLEIST VI**Lab Number:** L1508189**Project Number:** 39744051.10006**Report Date:** 04/28/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1508189-01A	Canister - 2.7 Liter	N/A	NA		Y	Absent	MCP-TO15(30)
L1508189-02A	Canister - 2.7 Liter	N/A	NA		Y	Absent	MCP-TO15(30)
L1508189-03A	Canister - 2.7 Liter	N/A	NA		Y	Absent	MCP-TO15(30)
L1508189-04A	Canister - 2.7 Liter	N/A	NA		Y	Absent	MCP-TO15(30)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report



Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

Data Qualifiers

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

Project Name: AEROVOX/TITLEIST VI
Project Number: 39744051.10006

Lab Number: L1508189
Report Date: 04/28/15

REFERENCES

- 101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

ALPHA ANALYSIS PAGE 1 OF 1
CHAIN OF CUSTODY
 320 Forbes Blvd, Mansfield, MA 02048
 TEL: 508-822-9300 FAX: 508-822-3288

Client Information
 Client: AECOM
 Address: 1155 Elm St, Suite 401
Manchester, NH 03101
 Phone: (603) 606-4800
 Fax: (603) 401-7322
 Email: Judith.Lecclair@Daecom.com

Project Information
 Project Name: Arvovox/Titleist VI
 Project Location: New Bedford, MA
 Project #: 397440SL10006
 Project Manager: J. Leclair / M. Wade
 ALPHA Quote #: _____
Turn-Around Time
 Standard RUSH (only confirmed if pre-approved)
 Date Due: 4/29/15 Time: _____

Other Project Specific Requirements/Comments:
CVOC x MCP/CAM Method TO-15

Report Information - Data Deliverables
 Date Rec'd in Lab: 4/21/15
 FAX ADEX
 Criteria Checker: _____
 (Default based on Regulatory Criteria Indicated)
 Other Formats: _____
 EMAIL (standard pdf report)
 Additional Deliverables: _____
 Report to: (if different than Project Manager)
J. Leclair
M. Wade

Regulatory Requirements/Report Limits
 State/Fed Program Criteria
MA MCP

Billing Information
 ALPHA Job #: L15081899
 Same as Client info PO #: _____

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection				Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-14A by TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)	
		Date	Start Time	End Time	Initial Vacuum																		Final Vacuum
08189-01	AX-VIT-SS01	4-19-15	0932	0952	-29.92	-5.16	SV	JKH	2.7L	109	0098	X										PID: 0.0	
-02	AX-VIT-SS02	↓	1018	1030	-30.02	-8.59	SV	JKH	2.7L	200	0069	X											PID: 0.0
-03	AX-VIT-SS03	↓	1045	1105	-30.25	-5.46	SV	JKH	2.7L	2042	0289	X											PID: 0.6 ppm
-04	AX-VIT-SS04	↓	1108	1120	-30.01	-15.81	SV	JKH	2.7L	2320293		X											PID: 4.2 ppm

*** SAMPLE MATRIX CODES**
 AA = Ambient Air (Indoor/Outdoor)
 SV = Soil Vapor/Landfill Gas/SVE
 Other = Please Specify

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Groundwater Sample Analytical Reports



ANALYTICAL REPORT

Lab Number:	L1509173
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX- NEW BR WELLS
Project Number:	39744051.20005
Report Date:	05/07/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1509173-01	TRIP BLANK	WATER	NEW BEDFORD, MA	04/28/15 00:00	04/30/15
L1509173-02	MW-32B (65-85)	WATER	NEW BEDFORD, MA	04/28/15 12:50	04/30/15
L1509173-03	MW-32B (105-125)	WATER	NEW BEDFORD, MA	04/29/15 13:00	04/30/15
L1509173-04	MW-32B (125-145)	WATER	NEW BEDFORD, MA	04/30/15 09:40	04/30/15
L1509173-05	MW-32B (145-165)	WATER	NEW BEDFORD, MA	04/30/15 13:10	04/30/15
L1509173-06	MW-32B (NAPL)	WATER	NEW BEDFORD, MA	04/30/15 15:20	04/30/15
L1509173-07	MW-32B (165-185)	WATER	NEW BEDFORD, MA	04/30/15 16:15	04/30/15



Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509173

Project Number: 39744051.20005

Report Date: 05/07/15

MADEP MCP Response Action Analytical Report Certification

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

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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

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



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question H:


The continuing calibration standards, associated with L1509173-01 through -05 and -07, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

In reference to question I:

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

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 05/07/15

ORGANICS

VOLATILES

Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509173**Project Number:** 39744051.20005**Report Date:** 05/07/15**SAMPLE RESULTS**

Lab ID: L1509173-01
Client ID: TRIP BLANK
Sample Location: NEW BEDFORD, MA
Matrix: Water
Analytical Method: 97,8260C
Analytical Date: 05/06/15 04:59
Analyst: MM

Date Collected: 04/28/15 00:00
Date Received: 04/30/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

SAMPLE RESULTS

Lab ID: L1509173-01
Client ID: TRIP BLANK
Sample Location: NEW BEDFORD, MA

Date Collected: 04/28/15 00:00
Date Received: 04/30/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	102		70-130

Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509173

Project Number: 39744051.20005

Report Date: 05/07/15

SAMPLE RESULTS

Lab ID: L1509173-02
 Client ID: MW-32B (65-85)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/06/15 12:20
 Analyst: MM

Date Collected: 04/28/15 12:50
 Date Received: 04/30/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	19		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	3.0		ug/l	1.0	--	1
1,2-Dichloroethene, Total	3.0		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

SAMPLE RESULTS

Lab ID: L1509173-02
Client ID: MW-32B (65-85)
Sample Location: NEW BEDFORD, MA

Date Collected: 04/28/15 12:50
Date Received: 04/30/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509173

Project Number: 39744051.20005

Report Date: 05/07/15

SAMPLE RESULTS

Lab ID: L1509173-03
 Client ID: MW-32B (105-125)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/06/15 12:52
 Analyst: MM

Date Collected: 04/29/15 13:00
 Date Received: 04/30/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	24		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	32		ug/l	1.0	--	1
1,2-Dichloroethene, Total	32		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1

Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509173**Project Number:** 39744051.20005**Report Date:** 05/07/15**SAMPLE RESULTS**

Lab ID: L1509173-03
 Client ID: MW-32B (105-125)
 Sample Location: NEW BEDFORD, MA

Date Collected: 04/29/15 13:00
 Date Received: 04/30/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509173**Project Number:** 39744051.20005**Report Date:** 05/07/15**SAMPLE RESULTS**

Lab ID: L1509173-04 D2

Date Collected: 04/30/15 09:40

Client ID: MW-32B (125-145)

Date Received: 04/30/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 97,8260C

Analytical Date: 05/07/15 08:13

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Trichloroethene	110000		ug/l	2000	--	2000
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	104		70-130

Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509173**Project Number:** 39744051.20005**Report Date:** 05/07/15**SAMPLE RESULTS**

Lab ID: L1509173-04 D
 Client ID: MW-32B (125-145)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/06/15 13:24
 Analyst: MM

Date Collected: 04/30/15 09:40
 Date Received: 04/30/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	340		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,3-Dichloropropene, Total	ND		ug/l	100	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	100000	E	ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200
1,4-Dichlorobenzene	ND		ug/l	200	--	200
cis-1,2-Dichloroethene	1300		ug/l	200	--	200
1,2-Dichloroethene, Total	1300		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200



Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509173**Project Number:** 39744051.20005**Report Date:** 05/07/15**SAMPLE RESULTS**

Lab ID: L1509173-04 D

Date Collected: 04/30/15 09:40

Client ID: MW-32B (125-145)

Date Received: 04/30/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	102		70-130

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

SAMPLE RESULTS

Lab ID: L1509173-05 D2
 Client ID: MW-32B (145-165)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/07/15 08:44
 Analyst: MM

Date Collected: 04/30/15 13:10
 Date Received: 04/30/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Trichloroethene	54000		ug/l	1000	--	1000
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509173**Project Number:** 39744051.20005**Report Date:** 05/07/15**SAMPLE RESULTS**

Lab ID: L1509173-05 D
 Client ID: MW-32B (145-165)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/06/15 13:55
 Analyst: MM

Date Collected: 04/30/15 13:10
 Date Received: 04/30/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,3-Dichloropropene, Total	ND		ug/l	100	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	50000	E	ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200
1,4-Dichlorobenzene	ND		ug/l	200	--	200
cis-1,2-Dichloroethene	590		ug/l	200	--	200
1,2-Dichloroethene, Total	590		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200



Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509173**Project Number:** 39744051.20005**Report Date:** 05/07/15**SAMPLE RESULTS**

Lab ID: L1509173-05 D

Date Collected: 04/30/15 13:10

Client ID: MW-32B (145-165)

Date Received: 04/30/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	103		70-130

Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509173**Project Number:** 39744051.20005**Report Date:** 05/07/15**SAMPLE RESULTS**

Lab ID: L1509173-07 D
 Client ID: MW-32B (165-185)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/06/15 14:27
 Analyst: MM

Date Collected: 04/30/15 16:15
 Date Received: 04/30/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,3-Dichloropropene, Total	ND		ug/l	100	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	34000		ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200
1,4-Dichlorobenzene	ND		ug/l	200	--	200
cis-1,2-Dichloroethene	440		ug/l	200	--	200
1,2-Dichloroethene, Total	440		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200



Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509173**Project Number:** 39744051.20005**Report Date:** 05/07/15**SAMPLE RESULTS**

Lab ID: L1509173-07 D

Date Collected: 04/30/15 16:15

Client ID: MW-32B (165-185)

Date Received: 04/30/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	102		70-130

Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509173

Project Number: 39744051.20005

Report Date: 05/07/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/06/15 04:27
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05,07 Batch: WG782330-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509173

Project Number: 39744051.20005

Report Date: 05/07/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
 Analytical Date: 05/06/15 04:27
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05,07 Batch: WG782330-3					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509173

Project Number: 39744051.20005

Report Date: 05/07/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/07/15 05:35
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04-05 Batch: WG782330-6					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
Analytical Date: 05/07/15 05:35
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04-05 Batch: WG782330-6					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG782330-1 WG782330-2								
Methylene chloride	96		94		70-130		2	20
1,1-Dichloroethane	97		96		70-130		1	20
Chloroform	94		95		70-130		1	20
Carbon tetrachloride	80		89		70-130		11	20
1,2-Dichloropropane	95		94		70-130		1	20
Dibromochloromethane	76		80		70-130		5	20
1,1,2-Trichloroethane	93		92		70-130		1	20
Tetrachloroethene	98		96		70-130		2	20
Chlorobenzene	97		96		70-130		1	20
1,2-Dichloroethane	95		93		70-130		2	20
1,1,1-Trichloroethane	91		95		70-130		4	20
Bromodichloromethane	90		95		70-130		5	20
trans-1,3-Dichloropropene	70		76		70-130		8	20
cis-1,3-Dichloropropene	75		79		70-130		5	20
Bromoform	68	Q	74		70-130		8	20
1,1,2,2-Tetrachloroethane	91		91		70-130		0	20
Chloromethane	96		95		70-130		1	20
Vinyl chloride	100		101		70-130		1	20
Chloroethane	98		97		70-130		1	20
1,1-Dichloroethene	97		97		70-130		0	20
trans-1,2-Dichloroethene	97		97		70-130		0	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05,07 Batch: WG782330-1 WG782330-2								
Trichloroethene	95		95		70-130		0	20
1,2-Dichlorobenzene	98		98		70-130		0	20
1,3-Dichlorobenzene	99		98		70-130		1	20
1,4-Dichlorobenzene	98		97		70-130		1	20
cis-1,2-Dichloroethene	97		97		70-130		0	20
Dichlorodifluoromethane	99		98		70-130		1	20
1,2-Dibromoethane	93		92		70-130		1	20
1,3-Dichloropropane	94		93		70-130		1	20
1,1,1,2-Tetrachloroethane	92		96		70-130		4	20
o-Chlorotoluene	101		101		70-130		0	20
p-Chlorotoluene	100		100		70-130		0	20
Hexachlorobutadiene	99		101		70-130		2	20
1,2,4-Trichlorobenzene	93		93		70-130		0	20

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	99		99		70-130	
Toluene-d8	101		101		70-130	
4-Bromofluorobenzene	100		101		70-130	
Dibromofluoromethane	101		101		70-130	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

Parameter	LCS		LCS		LCS		LCS		LCS		LCS		LCS	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04-05 Batch: WG782330-4 WG782330-5														
Methylene chloride	103		102		70-130		1		20					
1,1-Dichloroethane	104		105		70-130		1		20					
Chloroform	103		102		70-130		1		20					
Carbon tetrachloride	84		94		70-130		11		20					
1,2-Dichloropropane	102		102		70-130		0		20					
Dibromochloromethane	77		83		70-130		8		20					
1,1,2-Trichloroethane	100		98		70-130		2		20					
Tetrachloroethene	103		103		70-130		0		20					
Chlorobenzene	102		102		70-130		0		20					
1,2-Dichloroethane	103		103		70-130		0		20					
1,1,1-Trichloroethane	98		104		70-130		6		20					
Bromodichloromethane	93		100		70-130		7		20					
trans-1,3-Dichloropropene	72		79		70-130		9		20					
cis-1,3-Dichloropropene	76		84		70-130		10		20					
Bromoform	68	Q	75		70-130		10		20					
1,1,2,2-Tetrachloroethane	97		95		70-130		2		20					
Chloromethane	98		98		70-130		0		20					
Vinyl chloride	107		108		70-130		1		20					
Chloroethane	106		106		70-130		0		20					
1,1-Dichloroethene	103		103		70-130		0		20					
trans-1,2-Dichloroethene	104		102		70-130		2		20					



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04-05 Batch: WG782330-4 WG782330-5								
Trichloroethene	102		101		70-130		1	20
1,2-Dichlorobenzene	102		104		70-130		2	20
1,3-Dichlorobenzene	102		104		70-130		2	20
1,4-Dichlorobenzene	102		104		70-130		2	20
cis-1,2-Dichloroethene	104		103		70-130		1	20
Dichlorodifluoromethane	108		104		70-130		4	20
1,2-Dibromoethane	97		96		70-130		1	20
1,3-Dichloropropane	102		99		70-130		3	20
1,1,1,2-Tetrachloroethane	94		101		70-130		7	20
o-Chlorotoluene	106		108		70-130		2	20
p-Chlorotoluene	104		107		70-130		3	20
Hexachlorobutadiene	98		108		70-130		10	20
1,2,4-Trichlorobenzene	90		97		70-130		7	20

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	Qual
1,2-Dichloroethane-d4	104		102		70-130	
Toluene-d8	100		100		70-130	
4-Bromofluorobenzene	99		99		70-130	
Dibromofluoromethane	102		103		70-130	



Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509173

Project Number: 39744051.20005

Report Date: 05/07/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1509173-01A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-02A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-02B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-02C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-03A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-03B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-03C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-04A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-04B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-04C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-04D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1509173-04E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1509173-05A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-05B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-05C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-05D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1509173-05E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1509173-06A	Vial HCl preserved	A	N/A	4.1	Y	Absent	HOLD-8260(14)
L1509173-06B	Vial HCl preserved	A	N/A	4.1	Y	Absent	HOLD-8260(14)
L1509173-06C	Vial HCl preserved	A	N/A	4.1	Y	Absent	HOLD-8260(14)
L1509173-06D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1509173-06E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1509173-07A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-07B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-07C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509173-07D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1509173-07E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()

*Values in parentheses indicate holding time in days

Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509173

Project Number: 39744051.20005

Report Date: 05/07/15

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
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*Values in parentheses indicate holding time in days



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

Data Qualifiers

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

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509173
Report Date: 05/07/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1



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

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

Client Information

Client: **AECOM**
Address: **1155 Elmst, Suite 401
Manchester, NH 03101**
Phone: **(603) 606-4800**
Email: **judith.leclair@aecom.com**

Additional Project Information:
CVOC only

Project Information

Project Name: **Aerovox - New BR Wells**
Project Location: **New Bedford, MA**
Project #: **39744051.2005**
Project Manager: **J. Leclair/M. Wade**
ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)
Date Due: **5/7/15**

Date Rec'd in Lab:

4/30/15

ALPHA Job #: **21509173**

Report Information - Data Deliverables

ADEX EMAIL

Billing Information

Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS	SVOC: <input checked="" type="checkbox"/> 826C <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS <input type="checkbox"/> PPH3	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input checked="" type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
09173-01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TRIP BLANK	1
02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW-32B (65-85)	3
03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW-32B (105-125)	3
04	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW-32B (125-145)	5
05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW-32B (145-165)	5
06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW-32B (NAPL)	5
07	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MW-32B (165-185)	5

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

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Relinquished By:

Judith Leclair
Date/Time: **4/30/15 1627**
4/30/15 1810

Received By:

Michelle
Date/Time: **4/30/15 1627**
4/30/15 1810

Container Type: **V**
Preservative: **B**

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

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1509173

Instrument ID: Quimby.i Calibration Date: 07-MAY-2015 Time: 04:01

Lab File ID: 0507A01 Init. Calib. Date(s): 05-MAY-2 05-MAY-2

Sample No: 8260 CCAL Init. Calib. Times : 07:52 11:02

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.31399	.33913	.1	8	20	
chloromethane	.62407	.61343	.1	-2	20	
vinyl chloride	.37321	.39966	.1	7	20	
chloroethane	.25262	.26875	.1	6	20	
1,1,-dichloroethene	.27598	.28351	.1	3	20	
methylene chloride	.32708	.33777	.1	3	20	
trans-1,2-dichloroethene	.29866	.3102	.1	4	20	
1,1-dichloroethane	.65114	.68055	.2	5	20	
cis-1,2-dichloroethene	.32907	.34188	.1	4	20	
chloroform	.54356	.56127	.2	3	20	
carbontetrachloride	100	83.467	.1	-17	20	
1,1,1-trichloroethane	.39916	.38942	.1	-2	20	
1,2-dichloroethane	.44405	.45957	.1	3	20	
trichloroethene	.3172	.32211	.2	2	20	
1,2-dichloropropane	.39067	.39675	.1	2	20	
bromodichloromethane	.35723	.33325	.2	-7	20	
cis-1,3-dichloropropene	100	76.184	.2	-24	20	F
tetrachloroethene	.41292	.42528	.2	3	20	
trans-1,3-dichloropropene	100	72.098	.1	-28	20	F
1,1,2-trichloroethane	.25884	.25953	.1	0	20	
chlorodibromomethane	100	76.855	.1	-23	20	F
1,3-dichloropropane	.55144	.56041	.05	2	20	
1,2-dibromoethane	.26892	.25997	.1	-3	20	
chlorobenzene	1.1749	1.1991	.5	2	20	
1,1,1,2-tetrachloroethane	.32612	.30668	.05	-6	20	
bromoform	100	67.873	.1	-32	20	F
1,1,2,2,-tetrachloroethane	.62445	.60637	.3	-3	20	
2-chlorotoluene	3.1967	3.3791	.05	6	20	
4-chlorotoluene	3.0002	3.1295	.05	4	20	
1,3-dichlorobenzene	1.7499	1.7775	.6	2	20	
1,4-dichlorobenzene	1.7350	1.7644	.5	2	20	
1,2-dichlorobenzene	1.5288	1.5659	.4	2	20	
hexachlorobutadiene	.39192	.38433	.05	-2	20	
1,2,4-trichlorobenzene	.71113	.63716	.2	-10	20	
=====	=====	=====	=====	=====	=====	
dibromofluoromethane	.21038	.21397	.05	2	20	
1,2-dichloroethane-d4	.3033	.31577	.05	4	20	
toluene-d8	1.332	1.3350	.05	0	20	

FORM VII MCP-8260-CHLR-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1509173

Instrument ID: Quimby.i Calibration Date: 06-MAY-2015 Time: 02:53

Lab File ID: 0506A01 Init. Calib. Date(s): 05-MAY-2 05-MAY-2

Sample No: 8260 CCAL Init. Calib. Times : 07:52 11:02

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane	.31399	.31128	.1	-1	20
chloromethane	.62407	.59751	.1	-4	20
vinyl chloride	.37321	.37474	.1	0	20
chloroethane	.25262	.2468	.1	-2	20
1,1,-dichloroethene	.27598	.26677	.1	-3	20
methylene chloride	.32708	.31384	.1	-4	20
trans-1,2-dichloroethene	.29866	.28874	.1	-3	20
1,1-dichloroethane	.65114	.6305	.2	-3	20
cis-1,2-dichloroethene	.32907	.32022	.1	-3	20
chloroform	.54356	.51297	.2	-6	20
carbontetrachloride	100	80.494	.1	-20	20
1,1,1-trichloroethane	.39916	.36347	.1	-9	20
1,2-dichloroethane	.44405	.42246	.1	-5	20
trichloroethene	.3172	.30222	.2	-5	20
1,2-dichloropropane	.39067	.37055	.1	-5	20
bromodichloromethane	.35723	.32087	.2	-10	20
cis-1,3-dichloropropene	100	74.910	.2	-25	20
tetrachloroethene	.41292	.40652	.2	-2	20
trans-1,3-dichloropropene	100	69.890	.1	-30	20
1,1,2-trichloroethane	.25884	.23975	.1	-7	20
chlorodibromomethane	100	76.419	.1	-24	20
1,3-dichloropropane	.55144	.51593	.05	-6	20
1,2-dibromoethane	.26892	.25037	.1	-7	20
chlorobenzene	1.1749	1.1361	.5	-3	20
1,1,1,2-tetrachloroethane	.32612	.30059	.05	-8	20
bromoform	100	68.547	.1	-31	20
1,1,2,2,-tetrachloroethane	.62445	.57111	.3	-9	20
2-chlorotoluene	3.1967	3.2343	.05	1	20
4-chorotoluene	3.0002	2.9988	.05	0	20
1,3-dichlorobenzene	1.7499	1.7355	.6	-1	20
1,4-dichlorobenzene	1.7350	1.7069	.5	-2	20
1,2-dichlorobenzene	1.5288	1.4968	.4	-2	20
hexachlorobutadiene	.39192	.3889	.05	-1	20
1,2,4-trichlorobenzene	.71113	.66433	.2	-7	20
dibromofluoromethane	.21038	.2119	.05	1	20
1,2-dichloroethane-d4	.3033	.30143	.05	-1	20
toluene-d8	1.332	1.3405	.05	1	20

F
F
F
F

FORM VII MCP-8260-CHLR-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1509173

Instrument ID: Quimby.i Calibration Date: 06-MAY-2015 Time: 02:53

Lab File ID: 0506A01 Init. Calib. Date(s): 05-MAY-2 05-MAY-2

Sample No: 8260 CCAL Init. Calib. Times : 07:52 11:02

Compound	RRF	RRF	MIN RRF	%D	MAX %D
4-bromofluorobenzene	.97906	.97784	.05	0	20



ANALYTICAL REPORT

Lab Number:	L1509698
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX-NEW BR WELLS
Project Number:	39744051.20005
Report Date:	05/12/15

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1509698-01	TRIP BLANK	WATER	NEW BEDFORD, MA	05/05/15 08:00	05/06/15
L1509698-02	MW-34B(98-118)	WATER	NEW BEDFORD, MA	05/05/15 10:45	05/06/15
L1509698-03	MW-34B(118-138)	WATER	NEW BEDFORD, MA	05/05/15 13:55	05/06/15
L1509698-04	MW-34B(138-158)	WATER	NEW BEDFORD, MA	05/06/15 09:10	05/06/15
L1509698-05	MW-34B(158-178)	WATER	NEW BEDFORD, MA	05/06/15 11:45	05/06/15
L1509698-06	MW-34B(178-198)	WATER	NEW BEDFORD, MA	05/06/15 15:30	05/06/15



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question G:

L1509698-02 through -06: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:


The continuing calibration standards, associated with L1509698-04, -05, and -06, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

In reference to question I:

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

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 05/12/15

ORGANICS

VOLATILES

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

SAMPLE RESULTS

Lab ID: L1509698-01
 Client ID: TRIP BLANK
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/08/15 05:47
 Analyst: MM

Date Collected: 05/05/15 08:00
 Date Received: 05/06/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1

Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-01

Date Collected: 05/05/15 08:00

Client ID: TRIP BLANK

Date Received: 05/06/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	102		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

SAMPLE RESULTS

Lab ID: L1509698-02 D
 Client ID: MW-34B(98-118)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/09/15 12:40
 Analyst: MM

Date Collected: 05/05/15 10:45
 Date Received: 05/06/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2000	--	1000
1,1-Dichloroethane	ND		ug/l	1000	--	1000
Chloroform	ND		ug/l	1000	--	1000
Carbon tetrachloride	ND		ug/l	1000	--	1000
1,2-Dichloropropane	ND		ug/l	1000	--	1000
Dibromochloromethane	ND		ug/l	1000	--	1000
1,1,2-Trichloroethane	ND		ug/l	1000	--	1000
Tetrachloroethene	ND		ug/l	1000	--	1000
Chlorobenzene	ND		ug/l	1000	--	1000
1,2-Dichloroethane	ND		ug/l	1000	--	1000
1,1,1-Trichloroethane	ND		ug/l	1000	--	1000
Bromodichloromethane	ND		ug/l	1000	--	1000
trans-1,3-Dichloropropene	ND		ug/l	500	--	1000
cis-1,3-Dichloropropene	ND		ug/l	500	--	1000
1,3-Dichloropropene, Total	ND		ug/l	500	--	1000
Bromoform	ND		ug/l	2000	--	1000
1,1,2,2-Tetrachloroethane	ND		ug/l	1000	--	1000
Chloromethane	ND		ug/l	2000	--	1000
Vinyl chloride	ND		ug/l	1000	--	1000
Chloroethane	ND		ug/l	2000	--	1000
1,1-Dichloroethene	ND		ug/l	1000	--	1000
trans-1,2-Dichloroethene	ND		ug/l	1000	--	1000
Trichloroethene	110000		ug/l	1000	--	1000
1,2-Dichlorobenzene	ND		ug/l	1000	--	1000
1,3-Dichlorobenzene	ND		ug/l	1000	--	1000
1,4-Dichlorobenzene	ND		ug/l	1000	--	1000
cis-1,2-Dichloroethene	5000		ug/l	1000	--	1000
1,2-Dichloroethene, Total	5000		ug/l	1000	--	1000
Dichlorodifluoromethane	ND		ug/l	2000	--	1000
1,2-Dibromoethane	ND		ug/l	2000	--	1000



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-02 D

Date Collected: 05/05/15 10:45

Client ID: MW-34B(98-118)

Date Received: 05/06/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichloropropane	ND		ug/l	2000	--	1000
1,1,1,2-Tetrachloroethane	ND		ug/l	1000	--	1000
o-Chlorotoluene	ND		ug/l	2000	--	1000
p-Chlorotoluene	ND		ug/l	2000	--	1000
Hexachlorobutadiene	ND		ug/l	600	--	1000
1,2,4-Trichlorobenzene	ND		ug/l	2000	--	1000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	112		70-130

Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-03 D
 Client ID: MW-34B(118-138)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/09/15 13:12
 Analyst: MM

Date Collected: 05/05/15 13:55
 Date Received: 05/06/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2000	--	1000
1,1-Dichloroethane	ND		ug/l	1000	--	1000
Chloroform	ND		ug/l	1000	--	1000
Carbon tetrachloride	ND		ug/l	1000	--	1000
1,2-Dichloropropane	ND		ug/l	1000	--	1000
Dibromochloromethane	ND		ug/l	1000	--	1000
1,1,2-Trichloroethane	ND		ug/l	1000	--	1000
Tetrachloroethene	ND		ug/l	1000	--	1000
Chlorobenzene	ND		ug/l	1000	--	1000
1,2-Dichloroethane	ND		ug/l	1000	--	1000
1,1,1-Trichloroethane	ND		ug/l	1000	--	1000
Bromodichloromethane	ND		ug/l	1000	--	1000
trans-1,3-Dichloropropene	ND		ug/l	500	--	1000
cis-1,3-Dichloropropene	ND		ug/l	500	--	1000
1,3-Dichloropropene, Total	ND		ug/l	500	--	1000
Bromoform	ND		ug/l	2000	--	1000
1,1,2,2-Tetrachloroethane	ND		ug/l	1000	--	1000
Chloromethane	ND		ug/l	2000	--	1000
Vinyl chloride	ND		ug/l	1000	--	1000
Chloroethane	ND		ug/l	2000	--	1000
1,1-Dichloroethene	ND		ug/l	1000	--	1000
trans-1,2-Dichloroethene	ND		ug/l	1000	--	1000
Trichloroethene	140000		ug/l	1000	--	1000
1,2-Dichlorobenzene	ND		ug/l	1000	--	1000
1,3-Dichlorobenzene	ND		ug/l	1000	--	1000
1,4-Dichlorobenzene	ND		ug/l	1000	--	1000
cis-1,2-Dichloroethene	7200		ug/l	1000	--	1000
1,2-Dichloroethene, Total	7200		ug/l	1000	--	1000
Dichlorodifluoromethane	ND		ug/l	2000	--	1000
1,2-Dibromoethane	ND		ug/l	2000	--	1000



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-03 D

Date Collected: 05/05/15 13:55

Client ID: MW-34B(118-138)

Date Received: 05/06/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichloropropane	ND		ug/l	2000	--	1000
1,1,1,2-Tetrachloroethane	ND		ug/l	1000	--	1000
o-Chlorotoluene	ND		ug/l	2000	--	1000
p-Chlorotoluene	ND		ug/l	2000	--	1000
Hexachlorobutadiene	ND		ug/l	600	--	1000
1,2,4-Trichlorobenzene	ND		ug/l	2000	--	1000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	110		70-130

Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-04 D2

Date Collected: 05/06/15 09:10

Client ID: MW-34B(138-158)

Date Received: 05/06/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 97,8260C

Analytical Date: 05/10/15 13:18

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Trichloroethene	140000		ug/l	2000	--	2000
-----------------	--------	--	------	------	----	------

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	103		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

SAMPLE RESULTS

Lab ID: L1509698-04 D
 Client ID: MW-34B(138-158)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/09/15 13:43
 Analyst: MM

Date Collected: 05/06/15 09:10
 Date Received: 05/06/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2000	--	1000
1,1-Dichloroethane	ND		ug/l	1000	--	1000
Chloroform	ND		ug/l	1000	--	1000
Carbon tetrachloride	ND		ug/l	1000	--	1000
1,2-Dichloropropane	ND		ug/l	1000	--	1000
Dibromochloromethane	ND		ug/l	1000	--	1000
1,1,2-Trichloroethane	ND		ug/l	1000	--	1000
Tetrachloroethene	ND		ug/l	1000	--	1000
Chlorobenzene	ND		ug/l	1000	--	1000
1,2-Dichloroethane	ND		ug/l	1000	--	1000
1,1,1-Trichloroethane	ND		ug/l	1000	--	1000
Bromodichloromethane	ND		ug/l	1000	--	1000
trans-1,3-Dichloropropene	ND		ug/l	500	--	1000
cis-1,3-Dichloropropene	ND		ug/l	500	--	1000
1,3-Dichloropropene, Total	ND		ug/l	500	--	1000
Bromoform	ND		ug/l	2000	--	1000
1,1,2,2-Tetrachloroethane	ND		ug/l	1000	--	1000
Chloromethane	ND		ug/l	2000	--	1000
Vinyl chloride	ND		ug/l	1000	--	1000
Chloroethane	ND		ug/l	2000	--	1000
1,1-Dichloroethene	ND		ug/l	1000	--	1000
trans-1,2-Dichloroethene	ND		ug/l	1000	--	1000
Trichloroethene	200000	E	ug/l	1000	--	1000
1,2-Dichlorobenzene	ND		ug/l	1000	--	1000
1,3-Dichlorobenzene	ND		ug/l	1000	--	1000
1,4-Dichlorobenzene	ND		ug/l	1000	--	1000
cis-1,2-Dichloroethene	5400		ug/l	1000	--	1000
1,2-Dichloroethene, Total	5400		ug/l	1000	--	1000
Dichlorodifluoromethane	ND		ug/l	2000	--	1000
1,2-Dibromoethane	ND		ug/l	2000	--	1000



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-04 D

Date Collected: 05/06/15 09:10

Client ID: MW-34B(138-158)

Date Received: 05/06/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2000	--	1000
1,1,1,2-Tetrachloroethane	ND		ug/l	1000	--	1000
o-Chlorotoluene	ND		ug/l	2000	--	1000
p-Chlorotoluene	ND		ug/l	2000	--	1000
Hexachlorobutadiene	ND		ug/l	600	--	1000
1,2,4-Trichlorobenzene	ND		ug/l	2000	--	1000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	113		70-130

Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-05 D2

Date Collected: 05/06/15 11:45

Client ID: MW-34B(158-178)

Date Received: 05/06/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 97,8260C

Analytical Date: 05/10/15 13:53

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

Trichloroethene	470000		ug/l	10000	--	10000
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	104		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

SAMPLE RESULTS

Lab ID: L1509698-05 D
 Client ID: MW-34B(158-178)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/09/15 14:15
 Analyst: MM

Date Collected: 05/06/15 11:45
 Date Received: 05/06/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2000	--	1000
1,1-Dichloroethane	ND		ug/l	1000	--	1000
Chloroform	ND		ug/l	1000	--	1000
Carbon tetrachloride	ND		ug/l	1000	--	1000
1,2-Dichloropropane	ND		ug/l	1000	--	1000
Dibromochloromethane	ND		ug/l	1000	--	1000
1,1,2-Trichloroethane	1200		ug/l	1000	--	1000
Tetrachloroethene	ND		ug/l	1000	--	1000
Chlorobenzene	ND		ug/l	1000	--	1000
1,2-Dichloroethane	ND		ug/l	1000	--	1000
1,1,1-Trichloroethane	ND		ug/l	1000	--	1000
Bromodichloromethane	ND		ug/l	1000	--	1000
trans-1,3-Dichloropropene	ND		ug/l	500	--	1000
cis-1,3-Dichloropropene	ND		ug/l	500	--	1000
1,3-Dichloropropene, Total	ND		ug/l	500	--	1000
Bromoform	ND		ug/l	2000	--	1000
1,1,2,2-Tetrachloroethane	ND		ug/l	1000	--	1000
Chloromethane	ND		ug/l	2000	--	1000
Vinyl chloride	ND		ug/l	1000	--	1000
Chloroethane	ND		ug/l	2000	--	1000
1,1-Dichloroethene	ND		ug/l	1000	--	1000
trans-1,2-Dichloroethene	ND		ug/l	1000	--	1000
Trichloroethene	600000	E	ug/l	1000	--	1000
1,2-Dichlorobenzene	ND		ug/l	1000	--	1000
1,3-Dichlorobenzene	ND		ug/l	1000	--	1000
1,4-Dichlorobenzene	ND		ug/l	1000	--	1000
cis-1,2-Dichloroethene	7300		ug/l	1000	--	1000
1,2-Dichloroethene, Total	7300		ug/l	1000	--	1000
Dichlorodifluoromethane	ND		ug/l	2000	--	1000
1,2-Dibromoethane	ND		ug/l	2000	--	1000



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-05 D

Date Collected: 05/06/15 11:45

Client ID: MW-34B(158-178)

Date Received: 05/06/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichloropropane	ND		ug/l	2000	--	1000
1,1,1,2-Tetrachloroethane	ND		ug/l	1000	--	1000
o-Chlorotoluene	ND		ug/l	2000	--	1000
p-Chlorotoluene	ND		ug/l	2000	--	1000
Hexachlorobutadiene	ND		ug/l	600	--	1000
1,2,4-Trichlorobenzene	ND		ug/l	2000	--	1000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	112		70-130

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

SAMPLE RESULTS

Lab ID: L1509698-06 D2
 Client ID: MW-34B(178-198)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/10/15 16:10
 Analyst: MM

Date Collected: 05/06/15 15:30
 Date Received: 05/06/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	320000		ug/l	10000	--	10000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	106		70-130

Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-06 D
 Client ID: MW-34B(178-198)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/09/15 14:46
 Analyst: MM

Date Collected: 05/06/15 15:30
 Date Received: 05/06/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2000	--	1000
1,1-Dichloroethane	ND		ug/l	1000	--	1000
Chloroform	ND		ug/l	1000	--	1000
Carbon tetrachloride	ND		ug/l	1000	--	1000
1,2-Dichloropropane	ND		ug/l	1000	--	1000
Dibromochloromethane	ND		ug/l	1000	--	1000
1,1,2-Trichloroethane	ND		ug/l	1000	--	1000
Tetrachloroethene	ND		ug/l	1000	--	1000
Chlorobenzene	ND		ug/l	1000	--	1000
1,2-Dichloroethane	ND		ug/l	1000	--	1000
1,1,1-Trichloroethane	ND		ug/l	1000	--	1000
Bromodichloromethane	ND		ug/l	1000	--	1000
trans-1,3-Dichloropropene	ND		ug/l	500	--	1000
cis-1,3-Dichloropropene	ND		ug/l	500	--	1000
1,3-Dichloropropene, Total	ND		ug/l	500	--	1000
Bromoform	ND		ug/l	2000	--	1000
1,1,2,2-Tetrachloroethane	ND		ug/l	1000	--	1000
Chloromethane	ND		ug/l	2000	--	1000
Vinyl chloride	ND		ug/l	1000	--	1000
Chloroethane	ND		ug/l	2000	--	1000
1,1-Dichloroethene	ND		ug/l	1000	--	1000
trans-1,2-Dichloroethene	ND		ug/l	1000	--	1000
Trichloroethene	460000	E	ug/l	1000	--	1000
1,2-Dichlorobenzene	ND		ug/l	1000	--	1000
1,3-Dichlorobenzene	ND		ug/l	1000	--	1000
1,4-Dichlorobenzene	ND		ug/l	1000	--	1000
cis-1,2-Dichloroethene	8200		ug/l	1000	--	1000
1,2-Dichloroethene, Total	8200		ug/l	1000	--	1000
Dichlorodifluoromethane	ND		ug/l	2000	--	1000
1,2-Dibromoethane	ND		ug/l	2000	--	1000



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1509698**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509698-06 D

Date Collected: 05/06/15 15:30

Client ID: MW-34B(178-198)

Date Received: 05/06/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2000	--	1000
1,1,1,2-Tetrachloroethane	ND		ug/l	1000	--	1000
o-Chlorotoluene	ND		ug/l	2000	--	1000
p-Chlorotoluene	ND		ug/l	2000	--	1000
Hexachlorobutadiene	ND		ug/l	600	--	1000
1,2,4-Trichlorobenzene	ND		ug/l	2000	--	1000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	111		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/08/15 05:15
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG783101-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 05/08/15 05:15
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG783101-3					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	102		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/09/15 05:20
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-06 Batch: WG783517-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
 Analytical Date: 05/09/15 05:20
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-06 Batch: WG783517-3					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	108		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/10/15 06:46
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04-06 Batch: WG783517-6					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
 Analytical Date: 05/10/15 06:46
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04-06 Batch: WG783517-6					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG783101-1 WG783101-2										
Methylene chloride	106		100		70-130		6		6	20
1,1-Dichloroethane	108		102		70-130		6		6	20
Chloroform	106		100		70-130		6		6	20
Carbon tetrachloride	98		96		70-130		2		2	20
1,2-Dichloropropane	106		101		70-130		5		5	20
Dibromochloromethane	91		90		70-130		1		1	20
1,1,2-Trichloroethane	107		102		70-130		5		5	20
Tetrachloroethene	108		102		70-130		6		6	20
Chlorobenzene	106		102		70-130		4		4	20
1,2-Dichloroethane	108		102		70-130		6		6	20
1,1,1-Trichloroethane	105		103		70-130		2		2	20
Bromodichloromethane	106		104		70-130		2		2	20
trans-1,3-Dichloropropene	80		83		70-130		4		4	20
cis-1,3-Dichloropropene	82		84		70-130		2		2	20
Bromoform	84		86		70-130		2		2	20
1,1,2,2-Tetrachloroethane	106		100		70-130		6		6	20
Chloromethane	103		96		70-130		7		7	20
Vinyl chloride	110		105		70-130		5		5	20
Chloroethane	111		103		70-130		7		7	20
1,1-Dichloroethene	105		100		70-130		5		5	20
trans-1,2-Dichloroethene	107		101		70-130		6		6	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG783101-1 WG783101-2								
Trichloroethene	105		100		70-130		5	20
1,2-Dichlorobenzene	108		104		70-130		4	20
1,3-Dichlorobenzene	108		105		70-130		3	20
1,4-Dichlorobenzene	108		103		70-130		5	20
cis-1,2-Dichloroethene	107		100		70-130		7	20
Dichlorodifluoromethane	112		102		70-130		9	20
1,2-Dibromoethane	104		100		70-130		4	20
1,3-Dichloropropane	108		101		70-130		7	20
1,1,1,2-Tetrachloroethane	110		106		70-130		4	20
o-Chlorotoluene	110		105		70-130		5	20
p-Chlorotoluene	109		104		70-130		5	20
Hexachlorobutadiene	113		110		70-130		3	20
1,2,4-Trichlorobenzene	105		102		70-130		3	20

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	105		102		70-130	
Toluene-d8	101		100		70-130	
4-Bromofluorobenzene	99		100		70-130	
Dibromofluoromethane	104		103		70-130	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-06 Batch: WG783517-1 WG783517-2										
Methylene chloride	99		95		70-130		4		4	20
1,1-Dichloroethane	108		104		70-130		4		4	20
Chloroform	112		108		70-130		4		4	20
Carbon tetrachloride	112		114		70-130		2		2	20
1,2-Dichloropropane	96		93		70-130		3		3	20
Dibromochloromethane	94		91		70-130		3		3	20
1,1,2-Trichloroethane	96		88		70-130		9		9	20
Tetrachloroethene	111		105		70-130		6		6	20
Chlorobenzene	100		97		70-130		3		3	20
1,2-Dichloroethane	111		107		70-130		4		4	20
1,1,1-Trichloroethane	119		119		70-130		0		0	20
Bromodichloromethane	109		107		70-130		2		2	20
trans-1,3-Dichloropropene	81		81		70-130		0		0	20
cis-1,3-Dichloropropene	83		83		70-130		0		0	20
Bromoform	84		84		70-130		0		0	20
1,1,2,2-Tetrachloroethane	89		83		70-130		7		7	20
Chloromethane	95		92		70-130		3		3	20
Vinyl chloride	112		109		70-130		3		3	20
Chloroethane	106		101		70-130		5		5	20
1,1-Dichloroethene	103		101		70-130		2		2	20
trans-1,2-Dichloroethene	104		101		70-130		3		3	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-06 Batch: WG783517-1 WG783517-2								
Trichloroethene	103		102		70-130		1	20
1,2-Dichlorobenzene	99		96		70-130		3	20
1,3-Dichlorobenzene	99		97		70-130		2	20
1,4-Dichlorobenzene	98		95		70-130		3	20
cis-1,2-Dichloroethene	103		101		70-130		2	20
Dichlorodifluoromethane	119		113		70-130		5	20
1,2-Dibromoethane	98		90		70-130		9	20
1,3-Dichloropropane	99		91		70-130		8	20
1,1,1,2-Tetrachloroethane	111		108		70-130		3	20
o-Chlorotoluene	103		102		70-130		1	20
p-Chlorotoluene	102		101		70-130		1	20
Hexachlorobutadiene	107		107		70-130		0	20
1,2,4-Trichlorobenzene	89		85		70-130		5	20

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	114		112		70-130	
Toluene-d8	102		100		70-130	
4-Bromofluorobenzene	99		101		70-130	
Dibromofluoromethane	111		109		70-130	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 04-06 Batch: WG783517-4 WG783517-5										
Methylene chloride	99		98		70-130		1		1	20
1,1-Dichloroethane	84		85		70-130		1		1	20
Chloroform	87		87		70-130		0		0	20
Carbon tetrachloride	86		87		70-130		1		1	20
1,2-Dichloropropane	86		87		70-130		1		1	20
Dibromochloromethane	83		83		70-130		0		0	20
1,1,2-Trichloroethane	82		81		70-130		1		1	20
Tetrachloroethene	87		88		70-130		1		1	20
Chlorobenzene	86		86		70-130		0		0	20
1,2-Dichloroethane	84		82		70-130		2		2	20
1,1,1-Trichloroethane	86		87		70-130		1		1	20
Bromodichloromethane	82		81		70-130		1		1	20
trans-1,3-Dichloropropene	76		73		70-130		4		4	20
cis-1,3-Dichloropropene	82		81		70-130		1		1	20
Bromoform	78		80		70-130		3		3	20
1,1,2,2-Tetrachloroethane	75		70		70-130		7		7	20
Chloromethane	77		77		70-130		0		0	20
Vinyl chloride	89		91		70-130		2		2	20
Chloroethane	96		98		70-130		2		2	20
1,1-Dichloroethene	102		102		70-130		0		0	20
trans-1,2-Dichloroethene	93		94		70-130		1		1	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04-06 Batch: WG783517-4 WG783517-5								
Trichloroethene	88		88		70-130		0	20
1,2-Dichlorobenzene	79		81		70-130		3	20
1,3-Dichlorobenzene	81		81		70-130		0	20
1,4-Dichlorobenzene	79		80		70-130		1	20
cis-1,2-Dichloroethene	85		86		70-130		1	20
Dichlorodifluoromethane	100		100		70-130		0	20
1,2-Dibromoethane	84		80		70-130		5	20
1,3-Dichloropropane	83		81		70-130		2	20
1,1,1,2-Tetrachloroethane	79		79		70-130		0	20
o-Chlorotoluene	76		79		70-130		4	20
p-Chlorotoluene	75		76		70-130		1	20
Hexachlorobutadiene	79		82		70-130		4	20
1,2,4-Trichlorobenzene	78		78		70-130		0	20

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	96		93		70-130	
Toluene-d8	99		97		70-130	
4-Bromofluorobenzene	93		92		70-130	
Dibromofluoromethane	104		105		70-130	



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1509698

Project Number: 39744051.20005

Report Date: 05/12/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1509698-01A	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-02A	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-02B	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-02C	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-02D	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()
L1509698-02E	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()
L1509698-03A	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-03B	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-03C	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-03D	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()
L1509698-03E	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()
L1509698-04A	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-04B	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-04C	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-04D	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()
L1509698-04E	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()
L1509698-05A	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-05B	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-05C	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-05D	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()
L1509698-05E	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()
L1509698-06A	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-06B	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-06C	Vial HCl preserved	A	N/A	2.2	Y	Absent	MCP-8260-CHLR-10(14)
L1509698-06D	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()
L1509698-06E	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	HOLD-8082()

*Values in parentheses indicate holding time in days

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

Data Qualifiers

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509698
Report Date: 05/12/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1



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

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

Client Information

Client: **AECOM**
Address: **1155 Elm St, Suite 401**
Manchester, NH 03101
Phone: **(603) 606-4800**
Email: **Judith.leclair@aecom.com**

Project Name: **Aerovox - New BR Wells**
Project Location: **New Bedford, MA**
Project #: **39744051-20005**
Project Manager: **J. Leclair / M. Wade**
ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

CVOC only

Additional Project Information:

Date Rec'd in Lab: **5/6/15** ALPHA Job #: **L1509698**

Report Information - Data Deliverables EMAIL ADEX Same as Client Info PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS	CVOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	METALS: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS <input type="checkbox"/> RCP 15	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
1								Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do PID	1
3									5
3									5
3									5
3									5
3									5

Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials	Container Type	Preservative	Date/Time	Received By:
TRIP BLANK	5.5.15	0800	TB		V	B	5/6/15 1545	Steve Wabnitz
MW-34B (98-118)	↓	1045	GW	JKH			5/6/15 1545	Steve Wabnitz
MW-34B (118-138)	↓	1355	GW	JKH			5/6/15 1545	Steve Wabnitz
MW-34B (138-158)	↓	0910	GW	JKH			5/6/15 1545	Steve Wabnitz
MW-34B (158-178)	↓	1145	GW	JKH			5/6/15 1545	Steve Wabnitz
MW-34B (178-198)	↓	1530	GW	JKH			5/6/15 1545	Steve Wabnitz

- Container Type**
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 E= Encore
 D= BOD Bottle
- Preservative**
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

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

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1509698

Instrument ID: Jack.i Calibration Date: 10-MAY-2015 Time: 04:30

Lab File ID: 0510A01 Init. Calib. Date(s): 14-APR-2 14-APR-2

Sample No: 8260 CCAL Init. Calib. Times : 19:03 22:30

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
=====	=====	=====	=====	=====	=====	
dichlorodifluoromethane	.54016	.53952	.1	0	20	
chloromethane	1.0355	.79456	.1	-23	20	F
vinyl chloride	.8478	.75443	.1	-11	20	
chloroethane	.45807	.44223	.1	-3	20	
1,1,-dichloroethene	.56613	.57986	.1	2	20	
methylene chloride	.62754	.62266	.1	-1	20	
trans-1,2-dichloroethene	.67625	.63081	.1	-7	20	
1,1-dichloroethane	1.4979	1.2662	.2	-15	20	
cis-1,2-dichloroethene	.82401	.70416	.1	-15	20	
chloroform	1.2900	1.1236	.2	-13	20	
carbontetrachloride	1.0353	.89393	.1	-14	20	
1,1,1-trichloroethane	1.2145	1.0393	.1	-14	20	
1,2-dichloroethane	1.1014	.92748	.1	-16	20	
trichloroethene	.78208	.69089	.2	-12	20	
1,2-dichloropropane	.96644	.83412	.1	-14	20	
bromodichloromethane	1.0566	.8699	.2	-18	20	
cis-1,3-dichloropropene	1.2936	1.0601	.2	-18	20	
tetrachloroethene	1.1223	.97772	.2	-13	20	
trans-1,3-dichloropropene	1.5640	1.1904	.1	-24	20	F
1,1,2-trichloroethane	.72084	.59344	.1	-18	20	
chlorodibromomethane	1.0092	.83635	.1	-17	20	
1,3-dichloropropane	1.4959	1.2410	.05	-17	20	
1,2-dibromoethane	.90752	.7586	.1	-16	20	
chlorobenzene	2.9203	2.5185	.5	-14	20	
1,1,1,2-tetrachloroethane	1.1235	.88708	.05	-21	20	F
bromoform	1.2415	.96226	.1	-22	20	F
1,1,2,2,-tetrachloroethane	2.3351	1.7483	.3	-25	20	F
2-chlorotoluene	8.1022	6.2010	.05	-23	20	F
4-chorotoluene	7.2862	5.4915	.05	-25	20	F
1,3-dichlorobenzene	4.7354	3.8152	.6	-19	20	
1,4-dichlorobenzene	4.7348	3.7336	.5	-21	20	F
1,2-dichlorobenzene	4.3111	3.4194	.4	-21	20	F
hexachlorobutadiene	.86561	.68669	.05	-21	20	F
1,2,4-trichlorobenzene	2.3765	1.8511	.2	-22	20	F
=====	=====	=====	=====	=====	=====	
dibromofluoromethane	.23178	.24065	.05	4	20	
1,2-dichloroethane-d4	.31911	.30512	.05	-4	20	
toluene-d8	1.2452	1.2269	.01	-1	20	

FORM VII MCP-8260-CHLR-10



ANALYTICAL REPORT

Lab Number:	L1509740
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX- NEW BR WELLS
Project Number:	39744051.20005
Report Date:	05/12/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1509740-01	MW-32B (NAPL)	WATER	NEW BEDFORD, MA	04/30/15 15:20	04/30/15



Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509740

Project Number: 39744051.20005

Report Date: 05/12/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question G:

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

In reference to question I:

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

PCBs

L1509740-01 has elevated detection limits due to the dilution required by matrix interferences encountered during the concentration of the sample.

In reference to question G:


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

In reference to question H:

The surrogate recoveries for L1509740-01 are outside the acceptance criteria for decachlorobiphenyl (0%/0%); however, the sample was not re-extracted due to coelution with obvious interferences. The results are not considered to be biased.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 05/12/15

ORGANICS

VOLATILES

Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509740**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509740-01 D
 Client ID: MW-32B (NAPL)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/12/15 15:16
 Analyst: MM

Date Collected: 04/30/15 15:20
 Date Received: 04/30/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	200	--	100
1,1-Dichloroethane	ND		ug/l	100	--	100
Chloroform	ND		ug/l	100	--	100
Carbon tetrachloride	ND		ug/l	100	--	100
1,2-Dichloropropane	ND		ug/l	100	--	100
Dibromochloromethane	ND		ug/l	100	--	100
1,1,2-Trichloroethane	ND		ug/l	100	--	100
Tetrachloroethene	ND		ug/l	100	--	100
Chlorobenzene	ND		ug/l	100	--	100
1,2-Dichloroethane	ND		ug/l	100	--	100
1,1,1-Trichloroethane	ND		ug/l	100	--	100
Bromodichloromethane	ND		ug/l	100	--	100
trans-1,3-Dichloropropene	ND		ug/l	50	--	100
cis-1,3-Dichloropropene	ND		ug/l	50	--	100
1,3-Dichloropropene, Total	ND		ug/l	50	--	100
Bromoform	ND		ug/l	200	--	100
1,1,2,2-Tetrachloroethane	ND		ug/l	100	--	100
Chloromethane	ND		ug/l	200	--	100
Vinyl chloride	ND		ug/l	100	--	100
Chloroethane	ND		ug/l	200	--	100
1,1-Dichloroethene	ND		ug/l	100	--	100
trans-1,2-Dichloroethene	ND		ug/l	100	--	100
Trichloroethene	10000		ug/l	100	--	100
1,2-Dichlorobenzene	ND		ug/l	100	--	100
1,3-Dichlorobenzene	ND		ug/l	100	--	100
1,4-Dichlorobenzene	ND		ug/l	100	--	100
cis-1,2-Dichloroethene	170		ug/l	100	--	100
1,2-Dichloroethene, Total	170		ug/l	100	--	100
Dichlorodifluoromethane	ND		ug/l	200	--	100
1,2-Dibromoethane	ND		ug/l	200	--	100



Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509740**Project Number:** 39744051.20005**Report Date:** 05/12/15**SAMPLE RESULTS**

Lab ID: L1509740-01 D

Date Collected: 04/30/15 15:20

Client ID: MW-32B (NAPL)

Date Received: 04/30/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichloropropane	ND		ug/l	200	--	100
1,1,1,2-Tetrachloroethane	ND		ug/l	100	--	100
o-Chlorotoluene	ND		ug/l	200	--	100
p-Chlorotoluene	ND		ug/l	200	--	100
Hexachlorobutadiene	ND		ug/l	60	--	100
1,2,4-Trichlorobenzene	ND		ug/l	200	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	99		70-130

Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509740

Project Number: 39744051.20005

Report Date: 05/12/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/12/15 05:15
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG784080-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1509740

Project Number: 39744051.20005

Report Date: 05/12/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 05/12/15 05:15
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG784080-3					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG784080-1 WG784080-2										
Methylene chloride	101		98		70-130		3			20
1,1-Dichloroethane	103		101		70-130		2			20
Chloroform	103		102		70-130		1			20
Carbon tetrachloride	113		113		70-130		0			20
1,2-Dichloropropane	100		98		70-130		2			20
Dibromochloromethane	100		97		70-130		3			20
1,1,2-Trichloroethane	100		98		70-130		2			20
Tetrachloroethene	105		103		70-130		2			20
Chlorobenzene	104		102		70-130		2			20
Trichlorofluoromethane	107		107		70-130		0			20
1,2-Dichloroethane	105		103		70-130		2			20
1,1,1-Trichloroethane	105		104		70-130		1			20
Bromodichloromethane	103		102		70-130		1			20
trans-1,3-Dichloropropene	99		96		70-130		3			20
cis-1,3-Dichloropropene	99		97		70-130		2			20
1,1-Dichloropropene	104		102		70-130		2			20
Bromoform	94		92		70-130		2			20
1,1,2,2-Tetrachloroethane	99		96		70-130		3			20
Benzene	103		101		70-130		2			20
Toluene	103		102		70-130		1			20
Ethylbenzene	108		106		70-130		2			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

Parameter	LCS		LCS		LCS		LCS		LCS		LCS		LCS	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG784080-1 WG784080-2														
Chloromethane	106		102		102		70-130		4		20			
Bromomethane	104		102		102		70-130		2		20			
Vinyl chloride	110		110		110		70-130		0		20			
Chloroethane	104		104		104		70-130		0		20			
1,1-Dichloroethene	103		101		101		70-130		2		20			
trans-1,2-Dichloroethene	104		101		101		70-130		3		20			
Trichloroethene	102		100		100		70-130		2		20			
1,2-Dichlorobenzene	103		102		102		70-130		1		20			
1,3-Dichlorobenzene	104		103		103		70-130		1		20			
1,4-Dichlorobenzene	104		103		103		70-130		1		20			
Methyl tert butyl ether	102		99		99		70-130		3		20			
p/m-Xylene	108		107		107		70-130		1		20			
o-Xylene	108		105		105		70-130		3		20			
cis-1,2-Dichloroethene	102		101		101		70-130		1		20			
Dibromomethane	99		97		97		70-130		2		20			
1,2,3-Trichloropropane	101		97		97		70-130		4		20			
Styrene	111		108		108		70-130		3		20			
Dichlorodifluoromethane	105		104		104		70-130		1		20			
Acetone	109		100		100		70-130		9		20			
Carbon disulfide	97		95		95		70-130		2		20			
2-Butanone	103		100		100		70-130		3		20			



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG784080-1 WG784080-2										
4-Methyl-2-pentanone	97		93		70-130		4			20
2-Hexanone	100		95		70-130		5			20
Bromochloromethane	99		99		70-130		0			20
Tetrahydrofuran	107		102		70-130		5			20
2,2-Dichloropropane	90		89		70-130		1			20
1,2-Dibromoethane	100		97		70-130		3			20
1,3-Dichloropropane	102		98		70-130		4			20
1,1,1,2-Tetrachloroethane	105		102		70-130		3			20
Bromobenzene	102		100		70-130		2			20
n-Butylbenzene	106		106		70-130		0			20
sec-Butylbenzene	106		106		70-130		0			20
tert-Butylbenzene	104		103		70-130		1			20
o-Chlorotoluene	106		105		70-130		1			20
p-Chlorotoluene	105		103		70-130		2			20
1,2-Dibromo-3-chloropropane	93		87		70-130		7			20
Hexachlorobutadiene	103		104		70-130		1			20
Isopropylbenzene	108		105		70-130		3			20
p-Isopropyltoluene	106		106		70-130		0			20
Naphthalene	87		87		70-130		0			20
n-Propylbenzene	108		107		70-130		1			20
1,2,3-Trichlorobenzene	88		88		70-130		0			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG784080-1 WG784080-2												
1,2,4-Trichlorobenzene	90		90		70-130		0					20
1,3,5-Trimethylbenzene	108		106		70-130		2					20
1,2,4-Trimethylbenzene	106		104		70-130		2					20
Ethyl ether	102		100		70-130		2					20
Isopropyl Ether	103		100		70-130		3					20
Ethyl-Tert-Butyl-Ether	103		99		70-130		4					20
Tertiary-Amyl Methyl Ether	101		98		70-130		3					20
1,4-Dioxane	106		103		70-130		3					20

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



PCBS

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

SAMPLE RESULTS

Lab ID: L1509740-01
Client ID: MW-32B (NAPL)
Sample Location: NEW BEDFORD, MA
Matrix: Water
Analytical Method: 97,8082
Analytical Date: 05/10/15 19:29
Analyst: JW

Date Collected: 04/30/15 15:20
Date Received: 04/30/15
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 05/09/15 10:10
Cleanup Method: EPA 3665A
Cleanup Date: 05/09/15
Cleanup Method: EPA 3660B
Cleanup Date: 05/09/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/l	0.500	--	2	A
Aroclor 1221	ND		ug/l	0.500	--	2	A
Aroclor 1232	ND		ug/l	0.500	--	2	A
Aroclor 1242	ND		ug/l	0.500	--	2	A
Aroclor 1248	ND		ug/l	0.500	--	2	A
Aroclor 1254	ND		ug/l	0.500	--	2	A
Aroclor 1260	ND		ug/l	0.500	--	2	A
Aroclor 1262	ND		ug/l	0.500	--	2	A
Aroclor 1268	ND		ug/l	0.500	--	2	A
PCBs, Total	ND		ug/l	0.500	--	2	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	38		30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	39		30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509740**Project Number:** 39744051.20005**Report Date:** 05/12/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8082A
 Analytical Date: 05/10/15 20:02
 Analyst: JW

Extraction Method: EPA 3510C
 Extraction Date: 05/09/15 10:10
 Cleanup Method: EPA 3665A
 Cleanup Date: 05/09/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 05/09/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG783485-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.250	--	A
Aroclor 1262	ND		ug/l	0.250	--	A
Aroclor 1268	ND		ug/l	0.250	--	A
PCBs, Total	ND		ug/l	0.250	--	A

Surrogate	%Recovery	Qualifier	Acceptance	Column
			Criteria	
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	83		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	97		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch: WG783485-2 WG783485-3								
Aroclor 1016	84		79		40-140	5	20	A
Aroclor 1260	96		92		40-140	5	20	A

Surrogate	LCS		LCSD		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		60		30-150	A
Decachlorobiphenyl	75		72		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		65		30-150	B
Decachlorobiphenyl	89		83		30-150	B



Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1509740**Project Number:** 39744051.20005**Report Date:** 05/12/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1509740-01A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509740-01B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509740-01C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1509740-01D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8082-10(365)
L1509740-01E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8082-10(365)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

Data Qualifiers

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

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1509740
Report Date: 05/12/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1



320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-898-9300

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

Client Information

Client: **AECOM**

Address: **1155 Elmst, Suite 401**

Manchester, NH 03101

Phone: **(603) 606-4800**

Email: **judith.leclair@aecom.com**

Additional Project Information:

CVOC only

Project Information

Project Name: **Aerovox - New BR Wells**

Project Location: **New Bedford, MA**

Project #: **39744051.20005**

Project Manager: **J. Leclair/M. Wade**

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: **5/7/15**

Date Rec'd in Lab:

4/30/15

ALPHA Job #: **L1509740**

Report Information - Data Deliverables

ADEX EMAIL

Same as Client info

PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS	SVOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS <input type="checkbox"/> RCP 13	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input checked="" type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
01	TRIP BLANK	TB	JKH B					1
02	MW-32B (65-85)	1250	JKH B					3
03	MW-32B (105-125)	1300	JKH B					3
04	MW-32B (125-145)	0940	JKH B					5
05	MW-32B (145-165)	1310	JKH B					5
06	MW-32B (165-185)	1520	JKH B					5
07	MW-32B (165-185)	1615	JKH B					5

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials	Container Type	Preservative	Date/Time	Relinquished By:	Received By:	Date/Time
09740-01	TRIP BLANK	4/28/15		TB	JKH B	V	B	4/30/15 1627	judith.leclair	judith.leclair	4/30/15 1627
	MW-32B (65-85)	4/28/15	1250	6W	JKH B	V	B	4/30/15 1627	judith.leclair	judith.leclair	4/30/15 1627
	MW-32B (105-125)	4/29/15	1300	6W	JKH B	V	B	4/30/15 1627	judith.leclair	judith.leclair	4/30/15 1627
	MW-32B (125-145)	4/30/15	0940	6W	JKH B	V	B	4/30/15 1627	judith.leclair	judith.leclair	4/30/15 1627
	MW-32B (145-165)	4/30/15	1310	6W	JKH B	V	B	4/30/15 1627	judith.leclair	judith.leclair	4/30/15 1627
	MW-32B (165-185)	4/30/15	1520	6W	JKH B	V	B	4/30/15 1627	judith.leclair	judith.leclair	4/30/15 1627
	MW-32B (165-185)	4/30/15	1615	6W	JKH B	V	B	4/30/15 1627	judith.leclair	judith.leclair	4/30/15 1627

Container Type	Preservative	Date/Time	Relinquished By:	Received By:	Date/Time
V	B	4/30/15 1627	judith.leclair	judith.leclair	4/30/15 1627

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

Preservative: A=None, B=HCl, C=HNO₃, D=H₂SO₄, E=NaOH, F=MeOH, G=NaHSO₄, H=Na₂S₂O₃, I=Ascorbic Acid, J=NH₄Cl, K=Zn Acetate, O=Other

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

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



ANALYTICAL REPORT

Lab Number:	L1510007
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX NEW BR WELLS
Project Number:	39744051.20005
Report Date:	05/14/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1510007-01	TRIP BLANK	WATER	NEW BEDFORD, MA	05/07/15 08:00	05/08/15
L1510007-02	MW-33B (32-52')	WATER	NEW BEDFORD, MA	05/07/15 13:00	05/08/15
L1510007-03	MW-33B (52-72')	WATER	NEW BEDFORD, MA	05/07/15 15:00	05/08/15
L1510007-04	MW-33B (72-92')	WATER	NEW BEDFORD, MA	05/08/15 10:00	05/08/15
L1510007-05	MW-33B (92-112')	WATER	NEW BEDFORD, MA	05/08/15 13:00	05/08/15
L1510007-06	MW-33B (112-132')	WATER	NEW BEDFORD, MA	05/08/15 15:30	05/08/15



Project Name: AEROVOX NEW BR WELLS

Lab Number: L1510007

Project Number: 39744051.20005

Report Date: 05/14/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question G:


L1510007-02 through -06: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question I:

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

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

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 05/14/15

ORGANICS

VOLATILES

Project Name: AEROVOX NEW BR WELLS

Lab Number: L1510007

Project Number: 39744051.20005

Report Date: 05/14/15

SAMPLE RESULTS

Lab ID: L1510007-01
 Client ID: TRIP BLANK
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/13/15 09:20
 Analyst: MM

Date Collected: 05/07/15 08:00
 Date Received: 05/08/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1

Project Name: AEROVOX NEW BR WELLS**Lab Number:** L1510007**Project Number:** 39744051.20005**Report Date:** 05/14/15**SAMPLE RESULTS**

Lab ID: L1510007-01

Date Collected: 05/07/15 08:00

Client ID: TRIP BLANK

Date Received: 05/08/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	102		70-130

Project Name: AEROVOX NEW BR WELLS

Lab Number: L1510007

Project Number: 39744051.20005

Report Date: 05/14/15

SAMPLE RESULTS

Lab ID: L1510007-02 D
 Client ID: MW-33B (32-52')
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/13/15 11:00
 Analyst: MM

Date Collected: 05/07/15 13:00
 Date Received: 05/08/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	100	--	50
1,1-Dichloroethane	ND		ug/l	50	--	50
Chloroform	ND		ug/l	50	--	50
Carbon tetrachloride	ND		ug/l	50	--	50
1,2-Dichloropropane	ND		ug/l	50	--	50
Dibromochloromethane	ND		ug/l	50	--	50
1,1,2-Trichloroethane	ND		ug/l	50	--	50
Tetrachloroethene	56		ug/l	50	--	50
Chlorobenzene	ND		ug/l	50	--	50
1,2-Dichloroethane	ND		ug/l	50	--	50
1,1,1-Trichloroethane	ND		ug/l	50	--	50
Bromodichloromethane	ND		ug/l	50	--	50
trans-1,3-Dichloropropene	ND		ug/l	25	--	50
cis-1,3-Dichloropropene	ND		ug/l	25	--	50
1,3-Dichloropropene, Total	ND		ug/l	25	--	50
Bromoform	ND		ug/l	100	--	50
1,1,2,2-Tetrachloroethane	ND		ug/l	50	--	50
Chloromethane	ND		ug/l	100	--	50
Vinyl chloride	160		ug/l	50	--	50
Chloroethane	ND		ug/l	100	--	50
1,1-Dichloroethene	ND		ug/l	50	--	50
trans-1,2-Dichloroethene	ND		ug/l	50	--	50
Trichloroethene	9800		ug/l	50	--	50
1,2-Dichlorobenzene	ND		ug/l	50	--	50
1,3-Dichlorobenzene	ND		ug/l	50	--	50
1,4-Dichlorobenzene	ND		ug/l	50	--	50
cis-1,2-Dichloroethene	1800		ug/l	50	--	50
1,2-Dichloroethene, Total	1800		ug/l	50	--	50
Dichlorodifluoromethane	ND		ug/l	100	--	50
1,2-Dibromoethane	ND		ug/l	100	--	50



Project Name: AEROVOX NEW BR WELLS**Lab Number:** L1510007**Project Number:** 39744051.20005**Report Date:** 05/14/15**SAMPLE RESULTS**

Lab ID: L1510007-02 D

Date Collected: 05/07/15 13:00

Client ID: MW-33B (32-52')

Date Received: 05/08/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	100	--	50
1,1,1,2-Tetrachloroethane	ND		ug/l	50	--	50
o-Chlorotoluene	ND		ug/l	100	--	50
p-Chlorotoluene	ND		ug/l	100	--	50
Hexachlorobutadiene	ND		ug/l	30	--	50
1,2,4-Trichlorobenzene	ND		ug/l	100	--	50

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

Project Name: AEROVOX NEW BR WELLS**Lab Number:** L1510007**Project Number:** 39744051.20005**Report Date:** 05/14/15**SAMPLE RESULTS**

Lab ID: L1510007-03 D
 Client ID: MW-33B (52-72')
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/13/15 11:34
 Analyst: MM

Date Collected: 05/07/15 15:00
 Date Received: 05/08/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	500	--	250
1,1-Dichloroethane	ND		ug/l	250	--	250
Chloroform	ND		ug/l	250	--	250
Carbon tetrachloride	ND		ug/l	250	--	250
1,2-Dichloropropane	ND		ug/l	250	--	250
Dibromochloromethane	ND		ug/l	250	--	250
1,1,2-Trichloroethane	ND		ug/l	250	--	250
Tetrachloroethene	ND		ug/l	250	--	250
Chlorobenzene	ND		ug/l	250	--	250
1,2-Dichloroethane	ND		ug/l	250	--	250
1,1,1-Trichloroethane	ND		ug/l	250	--	250
Bromodichloromethane	ND		ug/l	250	--	250
trans-1,3-Dichloropropene	ND		ug/l	120	--	250
cis-1,3-Dichloropropene	ND		ug/l	120	--	250
1,3-Dichloropropene, Total	ND		ug/l	120	--	250
Bromoform	ND		ug/l	500	--	250
1,1,2,2-Tetrachloroethane	ND		ug/l	250	--	250
Chloromethane	ND		ug/l	500	--	250
Vinyl chloride	ND		ug/l	250	--	250
Chloroethane	ND		ug/l	500	--	250
1,1-Dichloroethene	ND		ug/l	250	--	250
trans-1,2-Dichloroethene	ND		ug/l	250	--	250
Trichloroethene	26000		ug/l	250	--	250
1,2-Dichlorobenzene	ND		ug/l	250	--	250
1,3-Dichlorobenzene	ND		ug/l	250	--	250
1,4-Dichlorobenzene	ND		ug/l	250	--	250
cis-1,2-Dichloroethene	2700		ug/l	250	--	250
1,2-Dichloroethene, Total	2700		ug/l	250	--	250
Dichlorodifluoromethane	ND		ug/l	500	--	250
1,2-Dibromoethane	ND		ug/l	500	--	250



Project Name: AEROVOX NEW BR WELLS**Lab Number:** L1510007**Project Number:** 39744051.20005**Report Date:** 05/14/15**SAMPLE RESULTS**

Lab ID: L1510007-03 D

Date Collected: 05/07/15 15:00

Client ID: MW-33B (52-72')

Date Received: 05/08/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	500	--	250
1,1,1,2-Tetrachloroethane	ND		ug/l	250	--	250
o-Chlorotoluene	ND		ug/l	500	--	250
p-Chlorotoluene	ND		ug/l	500	--	250
Hexachlorobutadiene	ND		ug/l	150	--	250
1,2,4-Trichlorobenzene	ND		ug/l	500	--	250

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX NEW BR WELLS

Lab Number: L1510007

Project Number: 39744051.20005

Report Date: 05/14/15

SAMPLE RESULTS

Lab ID: L1510007-04 D
 Client ID: MW-33B (72-92')
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/13/15 12:07
 Analyst: MM

Date Collected: 05/08/15 10:00
 Date Received: 05/08/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	1000	--	500
1,1-Dichloroethane	ND		ug/l	500	--	500
Chloroform	ND		ug/l	500	--	500
Carbon tetrachloride	ND		ug/l	500	--	500
1,2-Dichloropropane	ND		ug/l	500	--	500
Dibromochloromethane	ND		ug/l	500	--	500
1,1,2-Trichloroethane	ND		ug/l	500	--	500
Tetrachloroethene	ND		ug/l	500	--	500
Chlorobenzene	ND		ug/l	500	--	500
1,2-Dichloroethane	ND		ug/l	500	--	500
1,1,1-Trichloroethane	ND		ug/l	500	--	500
Bromodichloromethane	ND		ug/l	500	--	500
trans-1,3-Dichloropropene	ND		ug/l	250	--	500
cis-1,3-Dichloropropene	ND		ug/l	250	--	500
1,3-Dichloropropene, Total	ND		ug/l	250	--	500
Bromoform	ND		ug/l	1000	--	500
1,1,2,2-Tetrachloroethane	ND		ug/l	500	--	500
Chloromethane	ND		ug/l	1000	--	500
Vinyl chloride	ND		ug/l	500	--	500
Chloroethane	ND		ug/l	1000	--	500
1,1-Dichloroethene	ND		ug/l	500	--	500
trans-1,2-Dichloroethene	ND		ug/l	500	--	500
Trichloroethene	63000		ug/l	500	--	500
1,2-Dichlorobenzene	ND		ug/l	500	--	500
1,3-Dichlorobenzene	ND		ug/l	500	--	500
1,4-Dichlorobenzene	ND		ug/l	500	--	500
cis-1,2-Dichloroethene	3600		ug/l	500	--	500
1,2-Dichloroethene, Total	3600		ug/l	500	--	500
Dichlorodifluoromethane	ND		ug/l	1000	--	500
1,2-Dibromoethane	ND		ug/l	1000	--	500



Project Name: AEROVOX NEW BR WELLS**Lab Number:** L1510007**Project Number:** 39744051.20005**Report Date:** 05/14/15**SAMPLE RESULTS**

Lab ID: L1510007-04 D

Date Collected: 05/08/15 10:00

Client ID: MW-33B (72-92')

Date Received: 05/08/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	1000	--	500
1,1,1,2-Tetrachloroethane	ND		ug/l	500	--	500
o-Chlorotoluene	ND		ug/l	1000	--	500
p-Chlorotoluene	ND		ug/l	1000	--	500
Hexachlorobutadiene	ND		ug/l	300	--	500
1,2,4-Trichlorobenzene	ND		ug/l	1000	--	500

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX NEW BR WELLS**Lab Number:** L1510007**Project Number:** 39744051.20005**Report Date:** 05/14/15**SAMPLE RESULTS**

Lab ID: L1510007-05 D
 Client ID: MW-33B (92-112')
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/13/15 12:40
 Analyst: MM

Date Collected: 05/08/15 13:00
 Date Received: 05/08/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	500	--	250
1,1-Dichloroethane	ND		ug/l	250	--	250
Chloroform	ND		ug/l	250	--	250
Carbon tetrachloride	ND		ug/l	250	--	250
1,2-Dichloropropane	ND		ug/l	250	--	250
Dibromochloromethane	ND		ug/l	250	--	250
1,1,2-Trichloroethane	ND		ug/l	250	--	250
Tetrachloroethene	ND		ug/l	250	--	250
Chlorobenzene	ND		ug/l	250	--	250
1,2-Dichloroethane	ND		ug/l	250	--	250
1,1,1-Trichloroethane	ND		ug/l	250	--	250
Bromodichloromethane	ND		ug/l	250	--	250
trans-1,3-Dichloropropene	ND		ug/l	120	--	250
cis-1,3-Dichloropropene	ND		ug/l	120	--	250
1,3-Dichloropropene, Total	ND		ug/l	120	--	250
Bromoform	ND		ug/l	500	--	250
1,1,2,2-Tetrachloroethane	ND		ug/l	250	--	250
Chloromethane	ND		ug/l	500	--	250
Vinyl chloride	ND		ug/l	250	--	250
Chloroethane	ND		ug/l	500	--	250
1,1-Dichloroethene	ND		ug/l	250	--	250
trans-1,2-Dichloroethene	ND		ug/l	250	--	250
Trichloroethene	34000		ug/l	250	--	250
1,2-Dichlorobenzene	ND		ug/l	250	--	250
1,3-Dichlorobenzene	ND		ug/l	250	--	250
1,4-Dichlorobenzene	ND		ug/l	250	--	250
cis-1,2-Dichloroethene	2500		ug/l	250	--	250
1,2-Dichloroethene, Total	2500		ug/l	250	--	250
Dichlorodifluoromethane	ND		ug/l	500	--	250
1,2-Dibromoethane	ND		ug/l	500	--	250



Project Name: AEROVOX NEW BR WELLS**Lab Number:** L1510007**Project Number:** 39744051.20005**Report Date:** 05/14/15**SAMPLE RESULTS**

Lab ID: L1510007-05 D

Date Collected: 05/08/15 13:00

Client ID: MW-33B (92-112')

Date Received: 05/08/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	500	--	250
1,1,1,2-Tetrachloroethane	ND		ug/l	250	--	250
o-Chlorotoluene	ND		ug/l	500	--	250
p-Chlorotoluene	ND		ug/l	500	--	250
Hexachlorobutadiene	ND		ug/l	150	--	250
1,2,4-Trichlorobenzene	ND		ug/l	500	--	250

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	99		70-130

Project Name: AEROVOX NEW BR WELLS

Lab Number: L1510007

Project Number: 39744051.20005

Report Date: 05/14/15

SAMPLE RESULTS

Lab ID: L1510007-06 D
 Client ID: MW-33B (112-132')
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/13/15 13:14
 Analyst: MM

Date Collected: 05/08/15 15:30
 Date Received: 05/08/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	500	--	250
1,1-Dichloroethane	ND		ug/l	250	--	250
Chloroform	ND		ug/l	250	--	250
Carbon tetrachloride	ND		ug/l	250	--	250
1,2-Dichloropropane	ND		ug/l	250	--	250
Dibromochloromethane	ND		ug/l	250	--	250
1,1,2-Trichloroethane	ND		ug/l	250	--	250
Tetrachloroethene	ND		ug/l	250	--	250
Chlorobenzene	ND		ug/l	250	--	250
1,2-Dichloroethane	ND		ug/l	250	--	250
1,1,1-Trichloroethane	ND		ug/l	250	--	250
Bromodichloromethane	ND		ug/l	250	--	250
trans-1,3-Dichloropropene	ND		ug/l	120	--	250
cis-1,3-Dichloropropene	ND		ug/l	120	--	250
1,3-Dichloropropene, Total	ND		ug/l	120	--	250
Bromoform	ND		ug/l	500	--	250
1,1,2,2-Tetrachloroethane	ND		ug/l	250	--	250
Chloromethane	ND		ug/l	500	--	250
Vinyl chloride	ND		ug/l	250	--	250
Chloroethane	ND		ug/l	500	--	250
1,1-Dichloroethene	ND		ug/l	250	--	250
trans-1,2-Dichloroethene	ND		ug/l	250	--	250
Trichloroethene	40000		ug/l	250	--	250
1,2-Dichlorobenzene	ND		ug/l	250	--	250
1,3-Dichlorobenzene	ND		ug/l	250	--	250
1,4-Dichlorobenzene	ND		ug/l	250	--	250
cis-1,2-Dichloroethene	2700		ug/l	250	--	250
1,2-Dichloroethene, Total	2700		ug/l	250	--	250
Dichlorodifluoromethane	ND		ug/l	500	--	250
1,2-Dibromoethane	ND		ug/l	500	--	250



Project Name: AEROVOX NEW BR WELLS**Lab Number:** L1510007**Project Number:** 39744051.20005**Report Date:** 05/14/15**SAMPLE RESULTS**

Lab ID: L1510007-06 D

Date Collected: 05/08/15 15:30

Client ID: MW-33B (112-132')

Date Received: 05/08/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

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

MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	500	--	250
1,1,1,2-Tetrachloroethane	ND		ug/l	250	--	250
o-Chlorotoluene	ND		ug/l	500	--	250
p-Chlorotoluene	ND		ug/l	500	--	250
Hexachlorobutadiene	ND		ug/l	150	--	250
1,2,4-Trichlorobenzene	ND		ug/l	500	--	250

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	101		70-130

Project Name: AEROVOX NEW BR WELLS

Lab Number: L1510007

Project Number: 39744051.20005

Report Date: 05/14/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/13/15 05:28
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-06 Batch: WG784822-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEROVOX NEW BR WELLS

Lab Number: L1510007

Project Number: 39744051.20005

Report Date: 05/14/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
 Analytical Date: 05/13/15 05:28
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-06 Batch: WG784822-3					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l

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



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-06 Batch: WG784822-1 WG784822-2										
Methylene chloride	101		98		70-130		3		3	20
1,1-Dichloroethane	98		95		70-130		3		3	20
Chloroform	98		95		70-130		3		3	20
Carbon tetrachloride	99		97		70-130		2		2	20
1,2-Dichloropropane	94		94		70-130		0		0	20
Dibromochloromethane	86		91		70-130		6		6	20
1,1,2-Trichloroethane	90		90		70-130		0		0	20
Tetrachloroethene	100		97		70-130		3		3	20
Chlorobenzene	95		92		70-130		3		3	20
Trichlorofluoromethane	109		103		70-130		6		6	20
1,2-Dichloroethane	96		96		70-130		0		0	20
1,1,1-Trichloroethane	99		98		70-130		1		1	20
Bromodichloromethane	100		99		70-130		1		1	20
trans-1,3-Dichloropropene	90		92		70-130		2		2	20
cis-1,3-Dichloropropene	96		96		70-130		0		0	20
1,1-Dichloropropene	100		97		70-130		3		3	20
Bromoform	89		91		70-130		2		2	20
1,1,2,2-Tetrachloroethane	88		90		70-130		2		2	20
Benzene	98		93		70-130		5		5	20
Toluene	94		91		70-130		3		3	20
Ethylbenzene	97		92		70-130		5		5	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-06 Batch: WG784822-1 WG784822-2												
Chloromethane	99		93		70-130		6		6			20
Bromomethane	109		108		70-130		1		1			20
Vinyl chloride	102		97		70-130		5		5			20
Chloroethane	110		102		70-130		8		8			20
1,1-Dichloroethene	104		98		70-130		6		6			20
trans-1,2-Dichloroethene	98		96		70-130		2		2			20
Trichloroethene	98		93		70-130		5		5			20
1,2-Dichlorobenzene	99		93		70-130		6		6			20
1,3-Dichlorobenzene	97		91		70-130		6		6			20
1,4-Dichlorobenzene	100		93		70-130		7		7			20
Methyl tert butyl ether	91		94		70-130		3		3			20
p/m-Xylene	98		95		70-130		3		3			20
o-Xylene	98		95		70-130		3		3			20
cis-1,2-Dichloroethene	98		95		70-130		3		3			20
Dibromomethane	96		96		70-130		0		0			20
1,2,3-Trichloropropane	89		87		70-130		2		2			20
Styrene	98		96		70-130		2		2			20
Dichlorodifluoromethane	102		96		70-130		6		6			20
Acetone	88		101		70-130		14		14			20
Carbon disulfide	92		92		70-130		0		0			20
2-Butanone	77		82		70-130		6		6			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-06 Batch: WG784822-1 WG784822-2										
4-Methyl-2-pentanone	86		92		70-130		7			20
2-Hexanone	79		93		70-130		16			20
Bromochloromethane	96		100		70-130		4			20
Tetrahydrofuran	81		92		70-130		13			20
2,2-Dichloropropane	103		98		70-130		5			20
1,2-Dibromoethane	93		96		70-130		3			20
1,3-Dichloropropane	90		94		70-130		4			20
1,1,1,2-Tetrachloroethane	97		95		70-130		2			20
Bromobenzene	97		91		70-130		6			20
n-Butylbenzene	99		94		70-130		5			20
sec-Butylbenzene	97		90		70-130		7			20
tert-Butylbenzene	97		91		70-130		6			20
o-Chlorotoluene	99		90		70-130		10			20
p-Chlorotoluene	98		90		70-130		9			20
1,2-Dibromo-3-chloropropane	92		88		70-130		4			20
Hexachlorobutadiene	98		98		70-130		0			20
Isopropylbenzene	100		93		70-130		7			20
p-Isopropyltoluene	98		92		70-130		6			20
Naphthalene	90		91		70-130		1			20
n-Propylbenzene	101		92		70-130		9			20
1,2,3-Trichlorobenzene	90		89		70-130		1			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-06 Batch: WG784822-1 WG784822-2										
1,2,4-Trichlorobenzene	94		92		70-130		2			20
1,3,5-Trimethylbenzene	100		92		70-130		8			20
1,2,4-Trimethylbenzene	98		93		70-130		5			20
Ethyl ether	98		99		70-130		1			20
Isopropyl Ether	94		95		70-130		1			20
Ethyl-Tert-Butyl-Ether	92		95		70-130		3			20
Tertiary-Amyl Methyl Ether	90		93		70-130		3			20
1,4-Dioxane	83		105		70-130		23	Q		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	96		97		70-130
Toluene-d8	95		95		70-130
4-Bromofluorobenzene	103		95		70-130
Dibromofluoromethane	101		100		70-130



Project Name: AEROVOX NEW BR WELLS

Lab Number: L1510007

Project Number: 39744051.20005

Report Date: 05/14/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1510007-01A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-02A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-02B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-02C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-02D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1510007-02E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1510007-03A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-03B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-03C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-03D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1510007-03E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1510007-04A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-04B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-04C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-04D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1510007-04E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1510007-05A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-05B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-05C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-05D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1510007-05E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1510007-06A	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-06B	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-06C	Vial HCl preserved	A	N/A	4.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510007-06D	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()
L1510007-06E	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	HOLD-8082()

*Values in parentheses indicate holding time in days

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

Data Qualifiers

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

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510007
Report Date: 05/14/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE _____ OF _____



8 Walkup Drive
Westboro, MA 01581
Tel: 508-895-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-622-9300

Client Information

Client: **ARECOM**
Address: **1155 Elm St, Suite 401**
Manchester, NH 03101
Phone: **603-606-4800**
Email: **quith.lesler@arecom.com**

Project Information

Project Name: **Acron's New BA wells**
Project Location: **New Bedford MA**
Project #: **39744051, 2005**
Project Manager: **J. LeClair / M. Wade**
ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)
Date Due:

Additional Project Information:

CVOC only

Date Rec'd in Lab: **5/8/15** ALPHA Job #: **L1510007**

Report Information - Data Deliverables

ADEX EMAIL Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS

CVOC: 8260 624 524.2

METALS: MCP 13 MCP 14 RCP 15 PAH

METALS: RCRAS RCRAS RCRAS

EPH: Ranges & Targets Ranges Only PP13

VPH: Ranges & Targets Ranges Only

TPH: Quant Only Fingerprint

PCB PEST

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	CVOC	METALS	EPH	VPH	TPH	Sample Comments
10007-01	Trip Blank	5/7/15	0800	TB	JAC	1					
-02	MW-33B (32-52')	↓	1300	GW	JAC	3			2	Hold PCBs	5
-03	MW-33B (52-72')	↓	1500	GW	JAC	3			2	Hold PCBs	5
-04	MW-33B (72-92')	5/8/15	1000	GW	JAC	3			2	Hold PCBs	5
-05	MW-33B (92-112')	↓	1300	GW	JAC	3			2	Hold PCBs	High PID's
-06	MW-33B (112-132')	↓	1530	GW	JAC	3			2	Hold PCBs	" "

Container Type: **V** Preservative: **B**

Date/Time: **5/8/15 1530**

Received By: *[Signature]*

Date/Time: **5/8/15 1740**

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

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



ANALYTICAL REPORT

Lab Number:	L1510209
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX-NEW BR WELLS
Project Number:	39744051.20005
Report Date:	05/19/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510209
Report Date: 05/19/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1510209-01	MW-32B (125-145)	WATER	NEW BEDFORD, MA	04/30/15 09:40	04/30/15



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510209

Project Number: 39744051.20005

Report Date: 05/19/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510209
Report Date: 05/19/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510209
Report Date: 05/19/15

Case Narrative (continued)


MCP Related Narratives

PCBs

L1510209-01 contains peaks which match the retention times for Aroclor 1242, but do not match the area ratios typical for this aroclor. The result for Aroclor 1242 is reported as "weathered".

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 05/19/15

ORGANICS

PCBS

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510209

Project Number: 39744051.20005

Report Date: 05/19/15

SAMPLE RESULTS

Lab ID: L1510209-01
 Client ID: MW-32B (125-145)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8082
 Analytical Date: 05/16/15 22:51
 Analyst: JT

Date Collected: 04/30/15 09:40
 Date Received: 04/30/15
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 05/15/15 18:04
 Cleanup Method: EPA 3665A
 Cleanup Date: 05/16/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 05/16/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	2.81		ug/l	0.250	--	1	B
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	ND		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.250	--	1	A
Aroclor 1262	ND		ug/l	0.250	--	1	A
Aroclor 1268	ND		ug/l	0.250	--	1	A
PCBs, Total	2.81		ug/l	0.250	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	70		30-150	B

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510209

Project Number: 39744051.20005

Report Date: 05/19/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8082A
 Analytical Date: 05/16/15 22:14
 Analyst: JT

Extraction Method: EPA 3510C
 Extraction Date: 05/15/15 18:04
 Cleanup Method: EPA 3665A
 Cleanup Date: 05/16/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 05/16/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG785469-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.250	--	A
Aroclor 1262	ND		ug/l	0.250	--	A
Aroclor 1268	ND		ug/l	0.250	--	A
PCBs, Total	ND		ug/l	0.250	--	A

Surrogate	%Recovery	Qualifier	Acceptance	Column
			Criteria	
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	114		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	98		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510209
Report Date: 05/19/15

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch: WG785469-2 WG785469-3								
Aroclor 1016	77		84		40-140	9	20	A
Aroclor 1260	98		99		40-140	1	20	A

Surrogate	LCS		LCSD		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		67		30-150	A
Decachlorobiphenyl	110		108		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		58		30-150	B
Decachlorobiphenyl	102		94		30-150	B



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510209**Project Number:** 39744051.20005**Report Date:** 05/19/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1510209-01A	Amber 1000ml unpreserved	A	N/A	4.1	Y	Absent	MCP-8082-10(365)
L1510209-01B	Amber 1000ml unpreserved	A	N/A	4.1	Y	Absent	MCP-8082-10(365)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510209
Report Date: 05/19/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510209
Report Date: 05/19/15

Data Qualifiers

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510209
Report Date: 05/19/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
 8 Watup Drive
 Westboro, MA 01581
 Tel: 508-898-9220

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

Client Information

Client: **AECOM**
 Address: **1155 Elmst, Suite 401
 Manchester, NH 03101**
 Phone: **(603) 606-4800**
 Email: **judith.leclair@aecom.com**

Project Information

Project Name: **Aerovox - New BR Wells**
 Project Location: **New Bedford, MA**
 Project #: **39744051.20005**
 Project Manager: **J. Leclair/M. Wade**
 ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)
 Date Due: **5/7/15**

Additional Project Information:

CVOC only

Report Information - Data Deliverables

ADEX EMAIL Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS	SVOC: MCP 13 MCP 14 RCP 15	SVOC: ABN PAH	METALS: MCP 13 MCP 14 RCP 15	METALS: RCA8 RCA8 RCA8	EPH: Ranges & Targets Ranges Only	VPH: Ranges & Targets Ranges Only	TPH: Quant Only Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
10209-01	TRIP BLANK	TB	JKH B	4/28/15	1250	1250	1250	Blank	1
02	MW-32B (65-85)	6W	JKH B	4/28/15	1250	1250	1250	Blank	3
03	MW-32B (105-125)	6W	JKH B	4/29/15	1300	1300	1300	Blank	3
-01	MW-32B (125-145)	6W	JKH B	4/30/15	0940	0940	0940	Blank	5
05	MW-32B (145-165)	6W	JKH B	4/30/15	1310	1310	1310	Blank	5
06	MW-32B (NAPL)	6W	JKH B	4/30/15	1520	1520	1520	Blank	5
07	MW-32B (165-185)	6W	JKH B	4/30/15	1615	1615	1615	Blank	5

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

Preservative
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

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



ANALYTICAL REPORT

Lab Number:	L1510236
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX-NEW BR WELLS
Project Number:	39744051.20005
Report Date:	05/19/15

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510236
Report Date: 05/19/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1510236-01	TRIP BLANK	WATER	NEW BEDFORD, MA	05/11/15 00:00	05/12/15
L1510236-02	MW-33B(132-152)	WATER	NEW BEDFORD, MA	05/11/15 11:00	05/12/15
L1510236-03	MW-33B(152-172)	WATER	NEW BEDFORD, MA	05/11/15 15:00	05/12/15
L1510236-04	MW-33B(172-192)	WATER	NEW BEDFORD, MA	05/12/15 10:50	05/12/15



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510236

Project Number: 39744051.20005

Report Date: 05/19/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510236
Report Date: 05/19/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510236
Report Date: 05/19/15

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question G:


L1510236-02, -03, and -04: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question I:

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

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 05/19/15

ORGANICS

VOLATILES

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510236

Project Number: 39744051.20005

Report Date: 05/19/15

SAMPLE RESULTS

Lab ID: L1510236-01
 Client ID: TRIP BLANK
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/18/15 22:21
 Analyst: PK

Date Collected: 05/11/15 00:00
 Date Received: 05/12/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1

Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510236**Project Number:** 39744051.20005**Report Date:** 05/19/15**SAMPLE RESULTS**

Lab ID: L1510236-01

Date Collected: 05/11/15 00:00

Client ID: TRIP BLANK

Date Received: 05/12/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510236

Project Number: 39744051.20005

Report Date: 05/19/15

SAMPLE RESULTS

Lab ID: L1510236-02 D
 Client ID: MW-33B(132-152)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/19/15 02:13
 Analyst: PK

Date Collected: 05/11/15 11:00
 Date Received: 05/12/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	800	--	400
1,1-Dichloroethane	ND		ug/l	400	--	400
Chloroform	ND		ug/l	400	--	400
Carbon tetrachloride	ND		ug/l	400	--	400
1,2-Dichloropropane	ND		ug/l	400	--	400
Dibromochloromethane	ND		ug/l	400	--	400
1,1,2-Trichloroethane	ND		ug/l	400	--	400
Tetrachloroethene	ND		ug/l	400	--	400
Chlorobenzene	ND		ug/l	400	--	400
1,2-Dichloroethane	ND		ug/l	400	--	400
1,1,1-Trichloroethane	ND		ug/l	400	--	400
Bromodichloromethane	ND		ug/l	400	--	400
trans-1,3-Dichloropropene	ND		ug/l	200	--	400
cis-1,3-Dichloropropene	ND		ug/l	200	--	400
1,3-Dichloropropene, Total	ND		ug/l	200	--	400
Bromoform	ND		ug/l	800	--	400
1,1,2,2-Tetrachloroethane	ND		ug/l	400	--	400
Chloromethane	ND		ug/l	800	--	400
Vinyl chloride	ND		ug/l	400	--	400
Chloroethane	ND		ug/l	800	--	400
1,1-Dichloroethene	ND		ug/l	400	--	400
trans-1,2-Dichloroethene	ND		ug/l	400	--	400
Trichloroethene	41000		ug/l	400	--	400
1,2-Dichlorobenzene	ND		ug/l	400	--	400
1,3-Dichlorobenzene	ND		ug/l	400	--	400
1,4-Dichlorobenzene	ND		ug/l	400	--	400
cis-1,2-Dichloroethene	2800		ug/l	400	--	400
1,2-Dichloroethene, Total	2800		ug/l	400	--	400
Dichlorodifluoromethane	ND		ug/l	800	--	400
1,2-Dibromoethane	ND		ug/l	800	--	400



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510236**Project Number:** 39744051.20005**Report Date:** 05/19/15**SAMPLE RESULTS**

Lab ID: L1510236-02 D

Date Collected: 05/11/15 11:00

Client ID: MW-33B(132-152)

Date Received: 05/12/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	800	--	400
1,1,1,2-Tetrachloroethane	ND		ug/l	400	--	400
o-Chlorotoluene	ND		ug/l	800	--	400
p-Chlorotoluene	ND		ug/l	800	--	400
Hexachlorobutadiene	ND		ug/l	240	--	400
1,2,4-Trichlorobenzene	ND		ug/l	800	--	400

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	109		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510236

Project Number: 39744051.20005

Report Date: 05/19/15

SAMPLE RESULTS

Lab ID: L1510236-03 D
 Client ID: MW-33B(152-172)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/19/15 02:46
 Analyst: PK

Date Collected: 05/11/15 15:00
 Date Received: 05/12/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	200	--	100
1,1-Dichloroethane	ND		ug/l	100	--	100
Chloroform	ND		ug/l	100	--	100
Carbon tetrachloride	ND		ug/l	100	--	100
1,2-Dichloropropane	ND		ug/l	100	--	100
Dibromochloromethane	ND		ug/l	100	--	100
1,1,2-Trichloroethane	ND		ug/l	100	--	100
Tetrachloroethene	ND		ug/l	100	--	100
Chlorobenzene	ND		ug/l	100	--	100
1,2-Dichloroethane	ND		ug/l	100	--	100
1,1,1-Trichloroethane	ND		ug/l	100	--	100
Bromodichloromethane	ND		ug/l	100	--	100
trans-1,3-Dichloropropene	ND		ug/l	50	--	100
cis-1,3-Dichloropropene	ND		ug/l	50	--	100
1,3-Dichloropropene, Total	ND		ug/l	50	--	100
Bromoform	ND		ug/l	200	--	100
1,1,2,2-Tetrachloroethane	ND		ug/l	100	--	100
Chloromethane	ND		ug/l	200	--	100
Vinyl chloride	ND		ug/l	100	--	100
Chloroethane	ND		ug/l	200	--	100
1,1-Dichloroethene	ND		ug/l	100	--	100
trans-1,2-Dichloroethene	ND		ug/l	100	--	100
Trichloroethene	7500		ug/l	100	--	100
1,2-Dichlorobenzene	ND		ug/l	100	--	100
1,3-Dichlorobenzene	ND		ug/l	100	--	100
1,4-Dichlorobenzene	ND		ug/l	100	--	100
cis-1,2-Dichloroethene	610		ug/l	100	--	100
1,2-Dichloroethene, Total	610		ug/l	100	--	100
Dichlorodifluoromethane	ND		ug/l	200	--	100
1,2-Dibromoethane	ND		ug/l	200	--	100



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510236**Project Number:** 39744051.20005**Report Date:** 05/19/15**SAMPLE RESULTS**

Lab ID: L1510236-03 D

Date Collected: 05/11/15 15:00

Client ID: MW-33B(152-172)

Date Received: 05/12/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	200	--	100
1,1,1,2-Tetrachloroethane	ND		ug/l	100	--	100
o-Chlorotoluene	ND		ug/l	200	--	100
p-Chlorotoluene	ND		ug/l	200	--	100
Hexachlorobutadiene	ND		ug/l	60	--	100
1,2,4-Trichlorobenzene	ND		ug/l	200	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	106		70-130

Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510236**Project Number:** 39744051.20005**Report Date:** 05/19/15**SAMPLE RESULTS**

Lab ID: L1510236-04 D
 Client ID: MW-33B(172-192)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/19/15 03:19
 Analyst: PK

Date Collected: 05/12/15 10:50
 Date Received: 05/12/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	200	--	100
1,1-Dichloroethane	ND		ug/l	100	--	100
Chloroform	ND		ug/l	100	--	100
Carbon tetrachloride	ND		ug/l	100	--	100
1,2-Dichloropropane	ND		ug/l	100	--	100
Dibromochloromethane	ND		ug/l	100	--	100
1,1,2-Trichloroethane	ND		ug/l	100	--	100
Tetrachloroethene	ND		ug/l	100	--	100
Chlorobenzene	ND		ug/l	100	--	100
1,2-Dichloroethane	ND		ug/l	100	--	100
1,1,1-Trichloroethane	ND		ug/l	100	--	100
Bromodichloromethane	ND		ug/l	100	--	100
trans-1,3-Dichloropropene	ND		ug/l	50	--	100
cis-1,3-Dichloropropene	ND		ug/l	50	--	100
1,3-Dichloropropene, Total	ND		ug/l	50	--	100
Bromoform	ND		ug/l	200	--	100
1,1,2,2-Tetrachloroethane	ND		ug/l	100	--	100
Chloromethane	ND		ug/l	200	--	100
Vinyl chloride	ND		ug/l	100	--	100
Chloroethane	ND		ug/l	200	--	100
1,1-Dichloroethene	ND		ug/l	100	--	100
trans-1,2-Dichloroethene	ND		ug/l	100	--	100
Trichloroethene	15000		ug/l	100	--	100
1,2-Dichlorobenzene	ND		ug/l	100	--	100
1,3-Dichlorobenzene	ND		ug/l	100	--	100
1,4-Dichlorobenzene	ND		ug/l	100	--	100
cis-1,2-Dichloroethene	730		ug/l	100	--	100
1,2-Dichloroethene, Total	730		ug/l	100	--	100
Dichlorodifluoromethane	ND		ug/l	200	--	100
1,2-Dibromoethane	ND		ug/l	200	--	100



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510236**Project Number:** 39744051.20005**Report Date:** 05/19/15**SAMPLE RESULTS**

Lab ID: L1510236-04 D

Date Collected: 05/12/15 10:50

Client ID: MW-33B(172-192)

Date Received: 05/12/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichloropropane	ND		ug/l	200	--	100
1,1,1,2-Tetrachloroethane	ND		ug/l	100	--	100
o-Chlorotoluene	ND		ug/l	200	--	100
p-Chlorotoluene	ND		ug/l	200	--	100
Hexachlorobutadiene	ND		ug/l	60	--	100
1,2,4-Trichlorobenzene	ND		ug/l	200	--	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510236

Project Number: 39744051.20005

Report Date: 05/19/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/18/15 21:47
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG786063-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510236

Project Number: 39744051.20005

Report Date: 05/19/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
 Analytical Date: 05/18/15 21:47
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG786063-3					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510236
Report Date: 05/19/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG786063-1 WG786063-2										
Methylene chloride	112		96		70-130		15		20	20
1,1-Dichloroethane	109		95		70-130		14		20	20
Chloroform	110		97		70-130		13		20	20
Carbon tetrachloride	112		96		70-130		15		20	20
1,2-Dichloropropane	103		91		70-130		12		20	20
Dibromochloromethane	100		92		70-130		8		20	20
1,1,2-Trichloroethane	98		92		70-130		6		20	20
Tetrachloroethene	108		96		70-130		12		20	20
Chlorobenzene	104		92		70-130		12		20	20
1,2-Dichloroethane	110		98		70-130		12		20	20
1,1,1-Trichloroethane	110		97		70-130		13		20	20
Bromodichloromethane	112		98		70-130		13		20	20
trans-1,3-Dichloropropene	99		91		70-130		8		20	20
cis-1,3-Dichloropropene	103		92		70-130		11		20	20
Bromoform	93		91		70-130		2		20	20
1,1,2,2-Tetrachloroethane	96		87		70-130		10		20	20
Chloromethane	95		81		70-130		16		20	20
Vinyl chloride	101		89		70-130		13		20	20
Chloroethane	118		103		70-130		14		20	20
1,1-Dichloroethene	113		98		70-130		14		20	20
trans-1,2-Dichloroethene	110		94		70-130		16		20	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510236
Report Date: 05/19/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG786063-1 WG786063-2								
Trichloroethene	108		95		70-130		13	20
1,2-Dichlorobenzene	105		91		70-130		14	20
1,3-Dichlorobenzene	105		90		70-130		15	20
1,4-Dichlorobenzene	106		91		70-130		15	20
cis-1,2-Dichloroethene	105		93		70-130		12	20
Dichlorodifluoromethane	86		73		70-130		16	20
1,2-Dibromoethane	102		96		70-130		6	20
1,3-Dichloropropane	101		93		70-130		8	20
1,1,1,2-Tetrachloroethane	106		96		70-130		10	20
o-Chlorotoluene	103		87		70-130		17	20
p-Chlorotoluene	102		85		70-130		18	20
Hexachlorobutadiene	109		95		70-130		14	20
1,2,4-Trichlorobenzene	100		86		70-130		15	20

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	103		104		70-130	
Toluene-d8	95		99		70-130	
4-Bromofluorobenzene	99		96		70-130	
Dibromofluoromethane	106		102		70-130	



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510236

Project Number: 39744051.20005

Report Date: 05/19/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1510236-01A	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-02A	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-02B	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-02C	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-02D	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	HOLD-8082()
L1510236-02E	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	HOLD-8082()
L1510236-03A	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-03B	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-03C	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-03D	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	HOLD-8082()
L1510236-03E	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	HOLD-8082()
L1510236-04A	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-04B	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-04C	Vial HCl preserved	A	N/A	2.7	Y	Absent	MCP-8260-CHLR-10(14)
L1510236-04D	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	HOLD-8082()
L1510236-04E	Amber 1000ml unpreserved	A	7	2.7	Y	Absent	HOLD-8082()

*Values in parentheses indicate holding time in days



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510236
Report Date: 05/19/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510236
Report Date: 05/19/15

Data Qualifiers

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510236
Report Date: 05/19/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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



CHAIN OF CUSTODY

PAGE 1 OF 1

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

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

Client Information

Client: **AECOM**
Address: **1155 Elm St, Suite 401**
Manchester, NH 03101
Phone: **(603) 606-4800**
Email: **judith.leclair@aecom.com**

Project Information

Project Name: **Aerovox - New BR Wells**
Project Location: **New Bedford, MA**
Project #: **39744057.2005**
Project Manager: **J-Leclair/M.Wade**
ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)
Date Due:

Additional Project Information:

CVOC only

Date Rec'd in Lab: **5/12/15** ALPHA Job #: **1510230**

Report Information - Data Deliverables Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS	SVOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	METALS: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> RCRAB <input type="checkbox"/> Pp13	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPCB <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint
CVOC							

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials	TPH	VPH	VPCB	TPH	DATE/TIME	CONTAINER TYPE	PRESERVATIVE	DATE/TIME	RECEIVED BY
10230-01	TRIP BLANK	5-11-15		TB	JKH						V	G	5/12/15 1600	J. Leclair
02	MW-33B (132-152)		1100	GW	JKH	2			Hold PCB	5/12/15 1600	A	A	5/12/15 1600	J. Leclair
03	MW-33B (152-172)		1500	GW	JKH	2			Hold PCB	5/12/15 1710	B	B	5/12/15 1710	J. Leclair
04	MW-33B (172-192)	5-12-15	1050	GW	JKH	2			Hold PCB					

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials	TPH	VPH	VPCB	TPH	DATE/TIME	CONTAINER TYPE	PRESERVATIVE	DATE/TIME	RECEIVED BY
1														
5														
5														
5														

Container Type
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Rectenia cup
 O= Other
 E= Encors
 D= BOD Bottle

Preservative
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

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



ANALYTICAL REPORT

Lab Number:	L1510560
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Marilyn Wade
Phone:	(603) 893-0616
Project Name:	AEROVOX-NEW BR WELLS
Project Number:	39744051.20005
Report Date:	06/10/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1510560-01	TRIP BLANK	WATER	NEW BEDFORD, MA	05/13/15 08:00	05/14/15
L1510560-02	MW-33B (192-212)	WATER	NEW BEDFORD, MA	05/13/15 10:35	05/14/15
L1510560-03	MW-33B (212-232)	WATER	NEW BEDFORD, MA	05/13/15 14:45	05/14/15
L1510560-04	MW-33B (232-252)	WATER	NEW BEDFORD, MA	05/14/15 12:05	05/14/15



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510560

Project Number: 39744051.20005

Report Date: 06/10/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

Case Narrative (continued)

Report Submission

This report replaces the report issued May 21, 2015. The collection date has been corrected on L1510560-04.

MCP Related Narratives

Volatile Organics

In reference to question G:


L1510560-02, -03, and -04: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question I:

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

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 06/10/15

ORGANICS

VOLATILES

Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510560**Project Number:** 39744051.20005**Report Date:** 06/10/15**SAMPLE RESULTS**

Lab ID: L1510560-01
Client ID: TRIP BLANK
Sample Location: NEW BEDFORD, MA
Matrix: Water
Analytical Method: 97,8260C
Analytical Date: 05/19/15 09:17
Analyst: MM

Date Collected: 05/13/15 08:00
Date Received: 05/14/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1

Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510560**Project Number:** 39744051.20005**Report Date:** 06/10/15**SAMPLE RESULTS**

Lab ID: L1510560-01

Date Collected: 05/13/15 08:00

Client ID: TRIP BLANK

Date Received: 05/14/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	129		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510560

Project Number: 39744051.20005

Report Date: 06/10/15

SAMPLE RESULTS

Lab ID: L1510560-02 D
 Client ID: MW-33B (192-212)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/19/15 15:22
 Analyst: MM

Date Collected: 05/13/15 10:35
 Date Received: 05/14/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	500	--	250
1,1-Dichloroethane	ND		ug/l	250	--	250
Chloroform	ND		ug/l	250	--	250
Carbon tetrachloride	ND		ug/l	250	--	250
1,2-Dichloropropane	ND		ug/l	250	--	250
Dibromochloromethane	ND		ug/l	250	--	250
1,1,2-Trichloroethane	ND		ug/l	250	--	250
Tetrachloroethene	ND		ug/l	250	--	250
Chlorobenzene	ND		ug/l	250	--	250
1,2-Dichloroethane	ND		ug/l	250	--	250
1,1,1-Trichloroethane	ND		ug/l	250	--	250
Bromodichloromethane	ND		ug/l	250	--	250
trans-1,3-Dichloropropene	ND		ug/l	120	--	250
cis-1,3-Dichloropropene	ND		ug/l	120	--	250
1,3-Dichloropropene, Total	ND		ug/l	120	--	250
Bromoform	ND		ug/l	500	--	250
1,1,2,2-Tetrachloroethane	ND		ug/l	250	--	250
Chloromethane	ND		ug/l	500	--	250
Vinyl chloride	ND		ug/l	250	--	250
Chloroethane	ND		ug/l	500	--	250
1,1-Dichloroethene	ND		ug/l	250	--	250
trans-1,2-Dichloroethene	ND		ug/l	250	--	250
Trichloroethene	28000		ug/l	250	--	250
1,2-Dichlorobenzene	ND		ug/l	250	--	250
1,3-Dichlorobenzene	ND		ug/l	250	--	250
1,4-Dichlorobenzene	ND		ug/l	250	--	250
cis-1,2-Dichloroethene	1800		ug/l	250	--	250
1,2-Dichloroethene, Total	1800		ug/l	250	--	250
Dichlorodifluoromethane	ND		ug/l	500	--	250
1,2-Dibromoethane	ND		ug/l	500	--	250



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510560**Project Number:** 39744051.20005**Report Date:** 06/10/15**SAMPLE RESULTS**

Lab ID: L1510560-02 D

Date Collected: 05/13/15 10:35

Client ID: MW-33B (192-212)

Date Received: 05/14/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	500	--	250
1,1,1,2-Tetrachloroethane	ND		ug/l	250	--	250
o-Chlorotoluene	ND		ug/l	500	--	250
p-Chlorotoluene	ND		ug/l	500	--	250
Hexachlorobutadiene	ND		ug/l	150	--	250
1,2,4-Trichlorobenzene	ND		ug/l	500	--	250

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	117		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510560

Project Number: 39744051.20005

Report Date: 06/10/15

SAMPLE RESULTS

Lab ID: L1510560-03 D
 Client ID: MW-33B (212-232)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/19/15 15:56
 Analyst: MM

Date Collected: 05/13/15 14:45
 Date Received: 05/14/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	1000	--	500
1,1-Dichloroethane	ND		ug/l	500	--	500
Chloroform	ND		ug/l	500	--	500
Carbon tetrachloride	ND		ug/l	500	--	500
1,2-Dichloropropane	ND		ug/l	500	--	500
Dibromochloromethane	ND		ug/l	500	--	500
1,1,2-Trichloroethane	ND		ug/l	500	--	500
Tetrachloroethene	ND		ug/l	500	--	500
Chlorobenzene	ND		ug/l	500	--	500
1,2-Dichloroethane	ND		ug/l	500	--	500
1,1,1-Trichloroethane	ND		ug/l	500	--	500
Bromodichloromethane	ND		ug/l	500	--	500
trans-1,3-Dichloropropene	ND		ug/l	250	--	500
cis-1,3-Dichloropropene	ND		ug/l	250	--	500
1,3-Dichloropropene, Total	ND		ug/l	250	--	500
Bromoform	ND		ug/l	1000	--	500
1,1,2,2-Tetrachloroethane	ND		ug/l	500	--	500
Chloromethane	ND		ug/l	1000	--	500
Vinyl chloride	ND		ug/l	500	--	500
Chloroethane	ND		ug/l	1000	--	500
1,1-Dichloroethene	ND		ug/l	500	--	500
trans-1,2-Dichloroethene	ND		ug/l	500	--	500
Trichloroethene	41000		ug/l	500	--	500
1,2-Dichlorobenzene	ND		ug/l	500	--	500
1,3-Dichlorobenzene	ND		ug/l	500	--	500
1,4-Dichlorobenzene	ND		ug/l	500	--	500
cis-1,2-Dichloroethene	2400		ug/l	500	--	500
1,2-Dichloroethene, Total	2400		ug/l	500	--	500
Dichlorodifluoromethane	ND		ug/l	1000	--	500
1,2-Dibromoethane	ND		ug/l	1000	--	500



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510560**Project Number:** 39744051.20005**Report Date:** 06/10/15**SAMPLE RESULTS**

Lab ID: L1510560-03 D

Date Collected: 05/13/15 14:45

Client ID: MW-33B (212-232)

Date Received: 05/14/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	1000	--	500
1,1,1,2-Tetrachloroethane	ND		ug/l	500	--	500
o-Chlorotoluene	ND		ug/l	1000	--	500
p-Chlorotoluene	ND		ug/l	1000	--	500
Hexachlorobutadiene	ND		ug/l	300	--	500
1,2,4-Trichlorobenzene	ND		ug/l	1000	--	500

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	119		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510560

Project Number: 39744051.20005

Report Date: 06/10/15

SAMPLE RESULTS

Lab ID: L1510560-04 D
 Client ID: MW-33B (232-252)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/19/15 16:29
 Analyst: MM

Date Collected: 05/14/15 12:05
 Date Received: 05/14/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,3-Dichloropropene, Total	ND		ug/l	100	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	22000		ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200
1,4-Dichlorobenzene	ND		ug/l	200	--	200
cis-1,2-Dichloroethene	1600		ug/l	200	--	200
1,2-Dichloroethene, Total	1600		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1510560**Project Number:** 39744051.20005**Report Date:** 06/10/15**SAMPLE RESULTS**

Lab ID: L1510560-04 D

Date Collected: 05/14/15 12:05

Client ID: MW-33B (232-252)

Date Received: 05/14/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	122		70-130

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510560

Project Number: 39744051.20005

Report Date: 06/10/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/19/15 08:44
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG786172-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510560

Project Number: 39744051.20005

Report Date: 06/10/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
 Analytical Date: 05/19/15 08:44
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-04 Batch: WG786172-3					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	126		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG786172-1 WG786172-2										
Methylene chloride	112		92		70-130		20		20	20
1,1-Dichloroethane	104		103		70-130		1		20	20
Chloroform	108		106		70-130		2		20	20
Carbon tetrachloride	108		108		70-130		0		20	20
1,2-Dichloropropane	101		101		70-130		0		20	20
Dibromochloromethane	94		102		70-130		8		20	20
1,1,2-Trichloroethane	102		106		70-130		4		20	20
Tetrachloroethene	102		103		70-130		1		20	20
Chlorobenzene	99		102		70-130		3		20	20
Trichlorofluoromethane	114		115		70-130		1		20	20
1,2-Dichloroethane	112		111		70-130		1		20	20
1,1,1-Trichloroethane	109		107		70-130		2		20	20
Bromodichloromethane	111		103		70-130		7		20	20
trans-1,3-Dichloropropene	92		96		70-130		4		20	20
cis-1,3-Dichloropropene	102		104		70-130		2		20	20
1,1-Dichloropropene	105		103		70-130		2		20	20
Bromoform	95		98		70-130		3		20	20
1,1,2,2-Tetrachloroethane	92		94		70-130		2		20	20
Benzene	102		101		70-130		1		20	20
Toluene	96		100		70-130		4		20	20
Ethylbenzene	98		102		70-130		4		20	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG786172-1 WG786172-2										
Chloromethane	101		96		70-130		5		20	
Bromomethane	81		104		70-130	Q	25	Q	20	
Vinyl chloride	84		97		70-130		14		20	
Chloroethane	119		122		70-130		2		20	
1,1-Dichloroethene	108		110		70-130		2		20	
trans-1,2-Dichloroethene	108		107		70-130		1		20	
Trichloroethene	107		105		70-130		2		20	
1,2-Dichlorobenzene	97		102		70-130		5		20	
1,3-Dichlorobenzene	99		104		70-130		5		20	
1,4-Dichlorobenzene	95		98		70-130		3		20	
Methyl tert butyl ether	100		103		70-130		3		20	
p/m-Xylene	101		103		70-130		2		20	
o-Xylene	99		106		70-130		7		20	
cis-1,2-Dichloroethene	105		102		70-130		3		20	
Dibromomethane	107		110		70-130		3		20	
1,2,3-Trichloropropane	98		100		70-130		2		20	
Styrene	99		104		70-130		5		20	
Dichlorodifluoromethane	100		108		70-130		8		20	
Acetone	115		100		70-130		14		20	
Carbon disulfide	102		101		70-130		1		20	
2-Butanone	94		84		70-130		11		20	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG786172-1 WG786172-2										
4-Methyl-2-pentanone	101		96		70-130		5			20
2-Hexanone	95		99		70-130		4			20
Bromochloromethane	109		110		70-130		1			20
Tetrahydrofuran	112		108		70-130		4			20
2,2-Dichloropropane	109		107		70-130		2			20
1,2-Dibromoethane	102		104		70-130		2			20
1,3-Dichloropropane	97		100		70-130		3			20
1,1,1,2-Tetrachloroethane	98		99		70-130		1			20
Bromobenzene	99		105		70-130		6			20
n-Butylbenzene	94		100		70-130		6			20
sec-Butylbenzene	93		98		70-130		5			20
tert-Butylbenzene	94		99		70-130		5			20
o-Chlorotoluene	97		101		70-130		4			20
p-Chlorotoluene	96		99		70-130		3			20
1,2-Dibromo-3-chloropropane	104		102		70-130		2			20
Hexachlorobutadiene	100		107		70-130		7			20
Isopropylbenzene	96		101		70-130		5			20
p-Isopropyltoluene	93		98		70-130		5			20
Naphthalene	83		86		70-130		4			20
n-Propylbenzene	98		101		70-130		3			20
1,2,3-Trichlorobenzene	89		93		70-130		4			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-04 Batch: WG786172-1 WG786172-2										
1,2,4-Trichlorobenzene	89		96		70-130		8			20
1,3,5-Trimethylbenzene	93		96		70-130		3			20
1,2,4-Trimethylbenzene	95		100		70-130		5			20
Ethyl ether	112		106		70-130		6			20
Isopropyl Ether	103		102		70-130		1			20
Ethyl-Tert-Butyl-Ether	102		101		70-130		1			20
Tertiary-Amyl Methyl Ether	96		96		70-130		0			20
1,4-Dioxane	83		82		70-130		1			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	103		109		70-130
Toluene-d8	95		100		70-130
4-Bromofluorobenzene	97		102		70-130
Dibromofluoromethane	104		105		70-130



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1510560

Project Number: 39744051.20005

Report Date: 06/10/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1510560-01A	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-02A	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-02B	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-02C	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-02D	Amber 1000ml unpreserved	A	7	2.1	Y	Absent	HOLD-8082()
L1510560-02E	Amber 1000ml unpreserved	A	7	2.1	Y	Absent	HOLD-8082()
L1510560-03A	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-03B	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-03C	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-03D	Amber 1000ml unpreserved	A	7	2.1	Y	Absent	HOLD-8082()
L1510560-03E	Amber 1000ml unpreserved	A	7	2.1	Y	Absent	HOLD-8082()
L1510560-04A	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-04B	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-04C	Vial HCl preserved	A	N/A	2.1	Y	Absent	MCP-8260-CHLR-10(14)
L1510560-04D	Amber 1000ml unpreserved	A	7	2.1	Y	Absent	HOLD-8082()
L1510560-04E	Amber 1000ml unpreserved	A	7	2.1	Y	Absent	HOLD-8082()

*Values in parentheses indicate holding time in days

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

Data Qualifiers

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510560
Report Date: 06/10/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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



CHAIN OF CUSTODY

PAGE 1 OF 1

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-888-9320

8 Walkup Drive
Westford, MA 01581
Tel: 508-888-9320

Client Information

Client: **AECOM**

Address: **1155 Elm St, Suite 401**

Manchester, NH 03101

Phone: **(603) 606-4800**

Email: **judith.leclair@aecom.com**

Additional Project Information:

CVOC only

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Project Information

Project Name: **Aerovox - New BR Wells**

Project Location: **New Bedford, MA**

Project #: **29744051-2005**

Project Manager: **J. LeClair / M. Wade**

ALPHA Quote #:

Date Rec'd in Lab: **5/14/15**

ALPHA Job #: **L1510560**

Report Information - Data Deliverables

ADEX EMAIL

Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

Billing Information

ANALYSIS	SVOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	METALS: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS	METALS: <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	*PCB <input checked="" type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	TOTAL # BOTTLES
1									1
2									5
3									5
4									5

SAMPLE INFO
 Filtration
 Field
 Lab to do
 Preservation
 Lab to do
PID
 Sample Comments

- Container Type**
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 E= Encore
 D= BOD Bottle
- Preservative**
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= MeOH
 F= MeOH
 G= H₂SO₄
 H= Na₂S₂O₅
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

Relinquished By:

Date/Time

Received By:

Date/Time

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



ANALYTICAL REPORT

Lab Number:	L1510750
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEVOVOX- NEW BR WELLS
Project Number:	39744051.20005
Report Date:	05/22/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1510750-01	TRIP BLANK	WATER	NEW BEDFORD, MA	05/15/15 08:00	05/15/15
L1510750-02	MW-33B (252-272)	WATER	NEW BEDFORD, MA	05/15/15 09:10	05/15/15
L1510750-03	MW-33B (272-292)	WATER	NEW BEDFORD, MA	05/15/15 14:10	05/15/15



Project Name: AEVOVOX- NEW BR WELLS

Lab Number: L1510750

Project Number: 39744051.20005

Report Date: 05/22/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question G:


L1510750-02 and -03: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question I:

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

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

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 05/22/15

ORGANICS

VOLATILES

Project Name: AEVOVOX- NEW BR WELLS

Lab Number: L1510750

Project Number: 39744051.20005

Report Date: 05/22/15

SAMPLE RESULTS

Lab ID: L1510750-01
 Client ID: TRIP BLANK
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/22/15 08:58
 Analyst: MM

Date Collected: 05/15/15 08:00
 Date Received: 05/15/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

SAMPLE RESULTS

Lab ID: L1510750-01
Client ID: TRIP BLANK
Sample Location: NEW BEDFORD, MA

Date Collected: 05/15/15 08:00
Date Received: 05/15/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	124		70-130

Project Name: AEVOVOX- NEW BR WELLS

Lab Number: L1510750

Project Number: 39744051.20005

Report Date: 05/22/15

SAMPLE RESULTS

Lab ID: L1510750-02 D
 Client ID: MW-33B (252-272)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/22/15 09:31
 Analyst: MM

Date Collected: 05/15/15 09:10
 Date Received: 05/15/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	400	--	200
1,1-Dichloroethane	ND		ug/l	200	--	200
Chloroform	ND		ug/l	200	--	200
Carbon tetrachloride	ND		ug/l	200	--	200
1,2-Dichloropropane	ND		ug/l	200	--	200
Dibromochloromethane	ND		ug/l	200	--	200
1,1,2-Trichloroethane	ND		ug/l	200	--	200
Tetrachloroethene	ND		ug/l	200	--	200
Chlorobenzene	ND		ug/l	200	--	200
1,2-Dichloroethane	ND		ug/l	200	--	200
1,1,1-Trichloroethane	ND		ug/l	200	--	200
Bromodichloromethane	ND		ug/l	200	--	200
trans-1,3-Dichloropropene	ND		ug/l	100	--	200
cis-1,3-Dichloropropene	ND		ug/l	100	--	200
1,3-Dichloropropene, Total	ND		ug/l	100	--	200
Bromoform	ND		ug/l	400	--	200
1,1,2,2-Tetrachloroethane	ND		ug/l	200	--	200
Chloromethane	ND		ug/l	400	--	200
Vinyl chloride	ND		ug/l	200	--	200
Chloroethane	ND		ug/l	400	--	200
1,1-Dichloroethene	ND		ug/l	200	--	200
trans-1,2-Dichloroethene	ND		ug/l	200	--	200
Trichloroethene	18000		ug/l	200	--	200
1,2-Dichlorobenzene	ND		ug/l	200	--	200
1,3-Dichlorobenzene	ND		ug/l	200	--	200
1,4-Dichlorobenzene	ND		ug/l	200	--	200
cis-1,2-Dichloroethene	1200		ug/l	200	--	200
1,2-Dichloroethene, Total	1200		ug/l	200	--	200
Dichlorodifluoromethane	ND		ug/l	400	--	200
1,2-Dibromoethane	ND		ug/l	400	--	200



Project Name: AEVOVOX- NEW BR WELLS**Lab Number:** L1510750**Project Number:** 39744051.20005**Report Date:** 05/22/15**SAMPLE RESULTS**

Lab ID: L1510750-02 D

Date Collected: 05/15/15 09:10

Client ID: MW-33B (252-272)

Date Received: 05/15/15

Sample Location: NEW BEDFORD, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	400	--	200
1,1,1,2-Tetrachloroethane	ND		ug/l	200	--	200
o-Chlorotoluene	ND		ug/l	400	--	200
p-Chlorotoluene	ND		ug/l	400	--	200
Hexachlorobutadiene	ND		ug/l	120	--	200
1,2,4-Trichlorobenzene	ND		ug/l	400	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	122		70-130

Project Name: AEVOVOX- NEW BR WELLS**Lab Number:** L1510750**Project Number:** 39744051.20005**Report Date:** 05/22/15**SAMPLE RESULTS**

Lab ID: L1510750-03 D
 Client ID: MW-33B (272-292)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8260C
 Analytical Date: 05/22/15 10:04
 Analyst: MM

Date Collected: 05/15/15 14:10
 Date Received: 05/15/15
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	1000	--	500
1,1-Dichloroethane	ND		ug/l	500	--	500
Chloroform	ND		ug/l	500	--	500
Carbon tetrachloride	ND		ug/l	500	--	500
1,2-Dichloropropane	ND		ug/l	500	--	500
Dibromochloromethane	ND		ug/l	500	--	500
1,1,2-Trichloroethane	ND		ug/l	500	--	500
Tetrachloroethene	ND		ug/l	500	--	500
Chlorobenzene	ND		ug/l	500	--	500
1,2-Dichloroethane	ND		ug/l	500	--	500
1,1,1-Trichloroethane	ND		ug/l	500	--	500
Bromodichloromethane	ND		ug/l	500	--	500
trans-1,3-Dichloropropene	ND		ug/l	250	--	500
cis-1,3-Dichloropropene	ND		ug/l	250	--	500
1,3-Dichloropropene, Total	ND		ug/l	250	--	500
Bromoform	ND		ug/l	1000	--	500
1,1,2,2-Tetrachloroethane	ND		ug/l	500	--	500
Chloromethane	ND		ug/l	1000	--	500
Vinyl chloride	ND		ug/l	500	--	500
Chloroethane	ND		ug/l	1000	--	500
1,1-Dichloroethene	ND		ug/l	500	--	500
trans-1,2-Dichloroethene	ND		ug/l	500	--	500
Trichloroethene	47000		ug/l	500	--	500
1,2-Dichlorobenzene	ND		ug/l	500	--	500
1,3-Dichlorobenzene	ND		ug/l	500	--	500
1,4-Dichlorobenzene	ND		ug/l	500	--	500
cis-1,2-Dichloroethene	2400		ug/l	500	--	500
1,2-Dichloroethene, Total	2400		ug/l	500	--	500
Dichlorodifluoromethane	ND		ug/l	1000	--	500
1,2-Dibromoethane	ND		ug/l	1000	--	500



Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

SAMPLE RESULTS

Lab ID: L1510750-03 D
Client ID: MW-33B (272-292)
Sample Location: NEW BEDFORD, MA

Date Collected: 05/15/15 14:10
Date Received: 05/15/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Volatile Organics - Westborough Lab

1,3-Dichloropropane	ND		ug/l	1000	--	500
1,1,1,2-Tetrachloroethane	ND		ug/l	500	--	500
o-Chlorotoluene	ND		ug/l	1000	--	500
p-Chlorotoluene	ND		ug/l	1000	--	500
Hexachlorobutadiene	ND		ug/l	300	--	500
1,2,4-Trichlorobenzene	ND		ug/l	1000	--	500

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	112		70-130

Project Name: AEVOVOX- NEW BR WELLS

Lab Number: L1510750

Project Number: 39744051.20005

Report Date: 05/22/15

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8260C
 Analytical Date: 05/22/15 07:51
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG787345-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene, Total	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--



Project Name: AEVOVOX- NEW BR WELLS

Lab Number: L1510750

Project Number: 39744051.20005

Report Date: 05/22/15

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
 Analytical Date: 05/22/15 07:51
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03 Batch: WG787345-3					
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	122		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG787345-1 WG787345-2										
Methylene chloride	109		105		70-130		4			20
1,1-Dichloroethane	103		100		70-130		3			20
Chloroform	107		103		70-130		4			20
Carbon tetrachloride	109		105		70-130		4			20
1,2-Dichloropropane	97		94		70-130		3			20
Dibromochloromethane	93		93		70-130		0			20
1,1,2-Trichloroethane	94		96		70-130		2			20
Tetrachloroethene	96		101		70-130		5			20
Chlorobenzene	93		97		70-130		4			20
Trichlorofluoromethane	119		115		70-130		3			20
1,2-Dichloroethane	108		105		70-130		3			20
1,1,1-Trichloroethane	108		105		70-130		3			20
Bromodichloromethane	106		103		70-130		3			20
trans-1,3-Dichloropropene	86		87		70-130		1			20
cis-1,3-Dichloropropene	98		95		70-130		3			20
1,1-Dichloropropene	105		100		70-130		5			20
Bromoform	90		92		70-130		2			20
1,1,2,2-Tetrachloroethane	89		86		70-130		3			20
Benzene	98		95		70-130		3			20
Toluene	94		96		70-130		2			20
Ethylbenzene	95		98		70-130		3			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG787345-1 WG787345-2												
Chloromethane	105		87		70-130		19		20			20
Bromomethane	123		112		70-130		9		20			20
Vinyl chloride	98		92		70-130		6		20			20
Chloroethane	117		118		70-130		1		20			20
1,1-Dichloroethene	109		105		70-130		4		20			20
trans-1,2-Dichloroethene	108		102		70-130		6		20			20
Trichloroethene	105		100		70-130		5		20			20
1,2-Dichlorobenzene	98		97		70-130		1		20			20
1,3-Dichlorobenzene	98		96		70-130		2		20			20
1,4-Dichlorobenzene	93		92		70-130		1		20			20
Methyl tert butyl ether	92		95		70-130		3		20			20
p/m-Xylene	96		99		70-130		3		20			20
o-Xylene	96		99		70-130		3		20			20
cis-1,2-Dichloroethene	105		100		70-130		5		20			20
Dibromomethane	108		102		70-130		6		20			20
1,2,3-Trichloropropane	93		90		70-130		3		20			20
Styrene	95		97		70-130		2		20			20
Dichlorodifluoromethane	98		93		70-130		5		20			20
Acetone	110		121		70-130		10		20			20
Carbon disulfide	96		89		70-130		8		20			20
2-Butanone	77		78		70-130		1		20			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits						
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG787345-1 WG787345-2												
4-Methyl-2-pentanone	88		91		70-130		3		3			20
2-Hexanone	86		89		70-130		3		3			20
Bromochloromethane	108		103		70-130		5		5			20
Tetrahydrofuran	99		96		70-130		3		3			20
2,2-Dichloropropane	110		105		70-130		5		5			20
1,2-Dibromoethane	94		96		70-130		2		2			20
1,3-Dichloropropane	91		95		70-130		4		4			20
1,1,1,2-Tetrachloroethane	95		96		70-130		1		1			20
Bromobenzene	100		96		70-130		4		4			20
n-Butylbenzene	94		90		70-130		4		4			20
sec-Butylbenzene	93		90		70-130		3		3			20
tert-Butylbenzene	94		92		70-130		2		2			20
o-Chlorotoluene	98		95		70-130		3		3			20
p-Chlorotoluene	94		91		70-130		3		3			20
1,2-Dibromo-3-chloropropane	91		90		70-130		1		1			20
Hexachlorobutadiene	98		97		70-130		1		1			20
Isopropylbenzene	97		95		70-130		2		2			20
p-isopropyltoluene	91		91		70-130		0		0			20
Naphthalene	74		74		70-130		0		0			20
n-Propylbenzene	96		94		70-130		2		2			20
1,2,3-Trichlorobenzene	87		81		70-130		7		7			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03 Batch: WG787345-1 WG787345-2										
1,2,4-Trichlorobenzene	82		80		70-130		2			20
1,3,5-Trimethylbenzene	92		89		70-130		3			20
1,2,4-Trimethylbenzene	94		92		70-130		2			20
Ethyl ether	102		99		70-130		3			20
Isopropyl Ether	100		96		70-130		4			20
Ethyl-Tert-Butyl-Ether	96		92		70-130		4			20
Tertiary-Amyl Methyl Ether	92		88		70-130		4			20
1,4-Dioxane	65	Q	62	Q	70-130		5			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	110		103		70-130
Toluene-d8	98		99		70-130
4-Bromofluorobenzene	101		100		70-130
Dibromofluoromethane	107		104		70-130



Project Name: AEVOVOX- NEW BR WELLS

Lab Number: L1510750

Project Number: 39744051.20005

Report Date: 05/22/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1510750-01A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-CHLR-10(14)
L1510750-02A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-CHLR-10(14)
L1510750-02B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-CHLR-10(14)
L1510750-02C	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-CHLR-10(14)
L1510750-02D	Amber 1000ml unpreserved	A	7	2.6	Y	Absent	HOLD-8082()
L1510750-02E	Amber 1000ml unpreserved	A	7	2.6	Y	Absent	HOLD-8082()
L1510750-03A	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-CHLR-10(14)
L1510750-03B	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-CHLR-10(14)
L1510750-03C	Vial HCl preserved	A	N/A	2.6	Y	Absent	MCP-8260-CHLR-10(14)
L1510750-03D	Amber 1000ml unpreserved	A	7	2.6	Y	Absent	HOLD-8082()
L1510750-03E	Amber 1000ml unpreserved	A	7	2.6	Y	Absent	HOLD-8082()

*Values in parentheses indicate holding time in days

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

Data Qualifiers

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

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1510750
Report Date: 05/22/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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



8 Walkup Drive
Westboro, MA 01581
Tel: 508-998-9220

CHAIN OF CUSTODY

PAGE 1 OF 1

Client Information

Client: **AECOM**
Address: **1155 Elm St, Suite 401**
Manchester, NH 08101
Phone: **(603) 606-4800**
Email: **judith.leclair@aecom.com**

Project Name: **Aerovox - New BR wells**
Project Location: **New Bedford, MA**
Project #: **39744051.2005**
Project Manager: **J. LeClair/M. Wade**
ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)
Date Due:

Additional Project Information:

CVOC only

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials
10750.01	TRIP BLANK	5.15.15	0800	TB	
10750.02	MW-338 (252-272)	↓	0910	GW	JKH
10750.03	MW-338 (272-292)	↓	1410	GW	JKH

- Container Type**
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 D= BOD Bottle
- Preservative**
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

Requisitioned By: *[Signature]*
Date/Time: **5/15/15 1705**

Container Type: **V**
Preservative: **B**

Received By: *[Signature]*
Date/Time: **5/15/15 1705**

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

Serial No: **052160750**
ALPHA Job #: **250215**

Date Rec'd in Lab: **5/15/15**

Report Information - Data Deliverables
 ADEX EMAIL Same as Client info PO #:

Billing Information

Regulatory Requirements & Project Information Requirements

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

Criteria

ANALYSIS	CVOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 5242	METALS: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAB <input type="checkbox"/> PP13	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPCB <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
								Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do PID	1
									5
									5



ANALYTICAL REPORT

Lab Number:	L1511057
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX-NEW BR WELLS
Project Number:	39744051.20005
Report Date:	05/28/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511057
Report Date: 05/28/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1511057-01	MW-34B(158-178)	WATER	NEW BEDFORD, MA	05/06/15 11:45	05/06/15



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1511057

Project Number: 39744051.20005

Report Date: 05/28/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511057
Report Date: 05/28/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511057
Report Date: 05/28/15

Case Narrative (continued)


MCP Related Narratives

PCBs

L1511057-01 contains peaks which match the retention times for Aroclor 1242, but do not match the area ratios typical for this aroclor. The result for Aroclor 1242 is reported as "weathered".

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 05/28/15

ORGANICS

PCBS

Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1511057

Project Number: 39744051.20005

Report Date: 05/28/15

SAMPLE RESULTS

Lab ID: L1511057-01
 Client ID: MW-34B(158-178)
 Sample Location: NEW BEDFORD, MA
 Matrix: Water
 Analytical Method: 97,8082
 Analytical Date: 05/23/15 21:17
 Analyst: JT

Date Collected: 05/06/15 11:45
 Date Received: 05/06/15
 Field Prep: Not Specified
 Extraction Method: EPA 3510C
 Extraction Date: 05/23/15 05:51
 Cleanup Method: EPA 3665A
 Cleanup Date: 05/23/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 05/23/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	0.642		ug/l	0.250	--	1	A
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	ND		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.250	--	1	A
Aroclor 1262	ND		ug/l	0.250	--	1	A
Aroclor 1268	ND		ug/l	0.250	--	1	A
PCBs, Total	0.642		ug/l	0.250	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	40		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	35		30-150	B

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511057
Report Date: 05/28/15

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 97,8082A
 Analytical Date: 05/23/15 20:19
 Analyst: JT

Extraction Method: EPA 3510C
 Extraction Date: 05/23/15 05:54
 Cleanup Method: EPA 3665A
 Cleanup Date: 05/23/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 05/23/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG787627-1						
Aroclor 1016	ND		ug/l	0.100	--	A
Aroclor 1221	ND		ug/l	0.100	--	A
Aroclor 1232	ND		ug/l	0.100	--	A
Aroclor 1242	ND		ug/l	0.100	--	A
Aroclor 1248	ND		ug/l	0.100	--	A
Aroclor 1254	ND		ug/l	0.100	--	A
Aroclor 1260	ND		ug/l	0.100	--	A
Aroclor 1262	ND		ug/l	0.100	--	A
Aroclor 1268	ND		ug/l	0.100	--	A
PCBs, Total	ND		ug/l	0.100	--	A

Surrogate	%Recovery	Qualifier	Acceptance	Column
			Criteria	
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	48		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	38		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511057
Report Date: 05/28/15

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch: WG787627-2 WG787627-3								
Atrodor 1016	91		84		40-140		8	20 A
Atrodor 1260	80		77		40-140		4	20 A

Surrogate	LCS		LCS D		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		64		30-150	A
Decachlorobiphenyl	59		56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		64		30-150	B
Decachlorobiphenyl	48		45		30-150	B



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1511057**Project Number:** 39744051.20005**Report Date:** 05/28/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1511057-01A	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	MCP-8082-10(365)
L1511057-01B	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	MCP-8082-10(365)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511057
Report Date: 05/28/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511057
Report Date: 05/28/15

Data Qualifiers

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511057
Report Date: 05/28/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1



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

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

Client Information

Client: **AECOM**
Address: **1155 Elm St, Suite 401**
Manchester, NH 03101
Phone: **(603) 606-4800**
Email: **Judith.leclair@aecom.com**

Project Name: **Aerovox - New BR Wells**
Project Location: **New Bedford, MA**
Project #: **39744051-20005**
Project Manager: **J. Leclair / M. Wade**
ALPHA Quote #:

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

Additional Project Information:

CVOC only

Report Information - Data Deliverables

Date Rec'd in Lab: **5/6/15** ALPHA Job #: **L1509698**

ADEX EMAIL Same as Client Info PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS	CVOC	SVOC	METALS	METALS	EPH	VPH	TPH	SAMPLE INFO	TOTAL # BOTTLES
1	1	ABN	MCP 13	MCP 14	RCP 15	Ranges & Targets	Ranges Only	Filtration	1
2	3	ABN	MCP 13	MCP 14	RCP 15	Ranges & Targets	Ranges Only	Field	5
3	3	ABN	MCP 13	MCP 14	RCP 15	Ranges & Targets	Ranges Only	Lab to do	5
4	3	ABN	MCP 13	MCP 14	RCP 15	Ranges & Targets	Ranges Only	Preservation	5
5	3	ABN	MCP 13	MCP 14	RCP 15	Ranges & Targets	Ranges Only	Lab to do	5
6	3	ABN	MCP 13	MCP 14	RCP 15	Ranges & Targets	Ranges Only	Lab to do	5

Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials	Container Type	Received By	Date/Time
TRIP BLANK	5.5.15	0800	TB		V		
MW-34B (98-118)	↓	1045	GW	JKH	B		
MW-34B (118-138)	↓	1355	GW	JKH	B		
MW-34B (138-158)	5.6.15	0910	GW	JKH	B		
MW-34B (158-178)	↓	1145	GW	JKH	B		
MW-34B (178-198)	↓	1530	GW	JKH	B		

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

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Refined/Quished By: *Jane S. Welch*
Date/Time: *5/6/15 1545*
Received By: *Stephanie Welch*
Date/Time: *5/16/15 1545*



ANALYTICAL REPORT

Lab Number:	L1511444
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX- NEW BR WELLS
Project Number:	39744051.20005
Report Date:	06/02/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511444
Report Date: 06/02/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1511444-01	MW-32B (165-185)	WATER	NEW BEDFORD, MA	04/30/15 16:15	04/30/15



Project Name: AEROVOX- NEW BR WELLS

Lab Number: L1511444

Project Number: 39744051.20005

Report Date: 06/02/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511444
Report Date: 06/02/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511444
Report Date: 06/02/15

Case Narrative (continued)

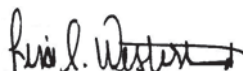
MCP Related Narratives

PCBs

L1511444-01 contains peaks which match the retention times for Aroclor 1242, but do not match the area ratios typical for this aroclor. The result for Aroclor 1242 is reported as "weathered".

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

Authorized Signature:



Lisa Westerlind

Title: Technical Director/Representative

Date: 06/02/15

ORGANICS

PCBS

Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1511444**Project Number:** 39744051.20005**Report Date:** 06/02/15**SAMPLE RESULTS**

Lab ID: L1511444-01
Client ID: MW-32B (165-185)
Sample Location: NEW BEDFORD, MA
Matrix: Water
Analytical Method: 97,8082
Analytical Date: 05/28/15 19:44
Analyst: TQ

Date Collected: 04/30/15 16:15
Date Received: 04/30/15
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 05/28/15 01:26
Cleanup Method: EPA 3665A
Cleanup Date: 05/28/15
Cleanup Method: EPA 3660B
Cleanup Date: 05/28/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	3.13		ug/l	0.250	--	1	A
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	1.29		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.250	--	1	A
Aroclor 1262	ND		ug/l	0.250	--	1	A
Aroclor 1268	ND		ug/l	0.250	--	1	A
PCBs, Total	4.42		ug/l	0.250	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511444
Report Date: 06/02/15

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 97,8082A
 Analytical Date: 05/28/15 23:02
 Analyst: TQ

Extraction Method: EPA 3510C
 Extraction Date: 05/28/15 01:26
 Cleanup Method: EPA 3665A
 Cleanup Date: 05/28/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 05/28/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG788571-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.250	--	A
Aroclor 1262	ND		ug/l	0.250	--	A
Aroclor 1268	ND		ug/l	0.250	--	A
PCBs, Total	ND		ug/l	0.250	--	A

Surrogate	%Recovery	Qualifier	Acceptance	Column
			Criteria	
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	140		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	116		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511444
Report Date: 06/02/15

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch: WG788571-2 WG788571-3								
Aroclor 1016	68		75		40-140		10	20 A
Aroclor 1260	95		96		40-140		1	20 A

Surrogate	LCS		LCSD		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		73		30-150	A
Decachlorobiphenyl	150		157	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		65		30-150	B
Decachlorobiphenyl	138		132		30-150	B



Project Name: AEROVOX- NEW BR WELLS**Lab Number:** L1511444**Project Number:** 39744051.20005**Report Date:** 06/02/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1511444-01A	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8082-10(365)
L1511444-01B	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8082-10(365)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511444
Report Date: 06/02/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511444
Report Date: 06/02/15

Data Qualifiers

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

Project Name: AEROVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511444
Report Date: 06/02/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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



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

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

CHAIN OF CUSTODY

PAGE 1 OF 1

Client Information

Client: **AECOM**

Address: **1155 Elmst, Suite 401**

Manchester, NH 03101

Phone: **(603) 606-4800**

Email: **judith.leclair@aecom.com**

Additional Project Information:

CVOC only

Project Information

Project Name: **Aerovox - New BR Wells**

Project Location: **New Bedford, MA**

Project #: **39744051.20005**

Project Manager: **J. Leclair/M. Wade**

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: **5/7/15**

Report Information - Data Deliverables

ADEX EMAIL

Regulatory Requirements & Project Information Requirements

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

Billing Information

Same as Client info PO #:

Date Rec'd in Lab: **4/30/15**

ALPHA Job #: **L1509773**

Serial No: 06021512-04
L1511444 LT 5/26/15

ANALYSIS	SVOC: Ch2600 E 024 <input type="checkbox"/> 324.2	METALS: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
1							Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do	1
3								3
3								3
5								5
5								5
5								5
5								5

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials
11444-01	TRIP BLANK	4/28/15		TB	JKH
02	MW-32B (65-85)	4/28/15	1250	6W	JKH
03	MW-32B (105-125)	4/29/15	1300	6W	JKH
04	MW-32B (125-145)	4/30/15	0940	6W	JKH
05	MW-32B (145-165)	4/30/15	1310	6W	JKH
06	MW-32B (NAPL)	4/30/15	1520	6W	JKH
-01	MW-32B (165-185)	4/30/15	1615	6W	JKH

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

Preservative
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

Relinquished By: *Judith Leclair* Date/Time: **4/30/15 1627**
 Received By: *Michelle Melvin* Date/Time: **4/30/15 1617**

Container Type: **V**
 Preservative: **B**

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



ANALYTICAL REPORT

Lab Number:	L1511445
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX-NEW BR WELLS
Project Number:	39744051.20005
Report Date:	06/02/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511445
Report Date: 06/02/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1511445-01	MW-34B(178-198')	WATER	NEW BEDFORD, MA	05/06/15 15:30	05/06/15



Project Name: AEROVOX-NEW BR WELLS

Lab Number: L1511445

Project Number: 39744051.20005

Report Date: 06/02/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511445
Report Date: 06/02/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

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

Authorized Signature:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 06/02/15

ORGANICS

PCBS

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511445
Report Date: 06/02/15

SAMPLE RESULTS

Lab ID: L1511445-01
Client ID: MW-34B(178-198')
Sample Location: NEW BEDFORD, MA
Matrix: Water
Analytical Method: 97,8082
Analytical Date: 05/28/15 19:56
Analyst: TQ

Date Collected: 05/06/15 15:30
Date Received: 05/06/15
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 05/28/15 01:26
Cleanup Method: EPA 3665A
Cleanup Date: 05/28/15
Cleanup Method: EPA 3660B
Cleanup Date: 05/28/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	ND		ug/l	0.250	--	1	A
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	ND		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.250	--	1	A
Aroclor 1262	ND		ug/l	0.250	--	1	A
Aroclor 1268	ND		ug/l	0.250	--	1	A
PCBs, Total	ND		ug/l	0.250	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	51		30-150	B

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511445
Report Date: 06/02/15

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 97,8082A
 Analytical Date: 05/28/15 23:02
 Analyst: TQ

Extraction Method: EPA 3510C
 Extraction Date: 05/28/15 01:26
 Cleanup Method: EPA 3665A
 Cleanup Date: 05/28/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 05/28/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG788571-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.250	--	A
Aroclor 1262	ND		ug/l	0.250	--	A
Aroclor 1268	ND		ug/l	0.250	--	A
PCBs, Total	ND		ug/l	0.250	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	140		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	116		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511445
Report Date: 06/02/15

Parameter	LCS %Recovery	Qual	LCS D %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch: WG788571-2 WG788571-3									
Aroclor 1016	68		75		40-140	10		20	A
Aroclor 1260	95		96		40-140	1		20	A

Surrogate	LCS %Recovery	Qual	LCS D %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		73		30-150	A
Decachlorobiphenyl	150		157	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		65		30-150	B
Decachlorobiphenyl	138		132		30-150	B



Project Name: AEROVOX-NEW BR WELLS**Lab Number:** L1511445**Project Number:** 39744051.20005**Report Date:** 06/02/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1511445-01A	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	MCP-8082-10(365)
L1511445-01B	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	MCP-8082-10(365)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511445
Report Date: 06/02/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511445
Report Date: 06/02/15

Data Qualifiers

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

Project Name: AEROVOX-NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511445
Report Date: 06/02/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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



CHAIN OF CUSTODY

PAGE 1 OF 1

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

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

Client Information

Client: **AECOM**

Address: **1155 Elm St, Suite 401**

Manchester, NH 03101

Phone: **(603) 606-4800**

Email: **judith.leclair@aecom.com**

Additional Project Information:

CVOC only

Project Name: **Aerovox - New Bedford, MA**
Project Location: **New Bedford, MA**
Project #: **39744051-20005**
Project Manager: **J. Leclair / M. Wade**
ALPHA Quote #:

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

Date Rec'd in Lab: **5/6/15**
ALPHA Job #: **L1504698**
Billing Information
 ADEX EMAIL
 Same as Client Info PO #:

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

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials	ANALYSIS										TOTAL # BOTTLES								
		Date	Time			CVOC: <input checked="" type="checkbox"/> 624 <input checked="" type="checkbox"/> 524 <input checked="" type="checkbox"/> 524.2	METALS: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO											
11445-01	TRIP BLANK	5-5-15	0800	TB	JKH																		1	
02	MW-34B (98-118)	↓	1045	GW	JKH																			5
03	MW-34B (118-138)	↓	1355	GW	JKH																			5
04	MW-34B (138-158)	↓	0910	GW	JKH																			5
05	MW-34B (158-178)	↓	1145	GW	JKH																			5
-01	MW-34B (178-198)	↓	1530	GW	JKH																			5

Container Type	Preservative	Date/Time	Received By:	Date/Time
V	B	5/6/15 1545	J. Leclair	5/6/15 1545
		5/6/15 1820	M. Wade	5/6/15 1820

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

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

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



ANALYTICAL REPORT

Lab Number:	L1511447
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX NEW BR WELLS
Project Number:	39744051.20005
Report Date:	06/02/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511447
Report Date: 06/02/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1511447-01	MW-33B (72-92')	WATER	NEW BEDFORD, MA	05/08/15 10:00	05/08/15



Project Name: AEROVOX NEW BR WELLS

Lab Number: L1511447

Project Number: 39744051.20005

Report Date: 06/02/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511447
Report Date: 06/02/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511447
Report Date: 06/02/15

Case Narrative (continued)

MCP Related Narratives

PCBs


L1511447-01 contains peaks which match the retention times for Aroclor1242, but do not match the area ratios typical for this aroclor. The result for Aroclor 1242 is reported as "weathered".

In reference to question G:

L1511447-01: One or more of the target analytes did not achieve the requested CAM reporting limits.

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

Authorized Signature:



Lisa Westerlind

Title: Technical Director/Representative

Date: 06/02/15

ORGANICS

PCBS

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511447
Report Date: 06/02/15

SAMPLE RESULTS

Lab ID: L1511447-01 D
Client ID: MW-33B (72-92')
Sample Location: NEW BEDFORD, MA
Matrix: Water
Analytical Method: 97,8082
Analytical Date: 06/02/15 08:39
Analyst: TQ

Date Collected: 05/08/15 10:00
Date Received: 05/08/15
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 05/28/15 01:26
Cleanup Method: EPA 3665A
Cleanup Date: 05/28/15
Cleanup Method: EPA 3660B
Cleanup Date: 05/28/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/l	1.25	--	5	A
Aroclor 1221	ND		ug/l	1.25	--	5	A
Aroclor 1232	ND		ug/l	1.25	--	5	A
Aroclor 1242	10.6		ug/l	1.25	--	5	A
Aroclor 1248	ND		ug/l	1.25	--	5	A
Aroclor 1254	ND		ug/l	1.25	--	5	A
Aroclor 1260	ND		ug/l	1.25	--	5	A
Aroclor 1262	ND		ug/l	1.25	--	5	A
Aroclor 1268	ND		ug/l	1.25	--	5	A
PCBs, Total	10.6		ug/l	1.25	--	5	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	103		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	85		30-150	B

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511447
Report Date: 06/02/15

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 97,8082A
 Analytical Date: 05/28/15 23:02
 Analyst: TQ

Extraction Method: EPA 3510C
 Extraction Date: 05/28/15 01:26
 Cleanup Method: EPA 3665A
 Cleanup Date: 05/28/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 05/28/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG788571-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.250	--	A
Aroclor 1262	ND		ug/l	0.250	--	A
Aroclor 1268	ND		ug/l	0.250	--	A
PCBs, Total	ND		ug/l	0.250	--	A

Surrogate	%Recovery	Qualifier	Acceptance	Column
			Criteria	
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	140		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	116		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511447
Report Date: 06/02/15

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch: WG788571-2 WG788571-3								
Aroclor 1016	68		75		40-140		10	20 A
Aroclor 1260	95		96		40-140		1	20 A

Surrogate	LCS		LCSD		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		73		30-150	A
Decachlorobiphenyl	150		157	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		65		30-150	B
Decachlorobiphenyl	138		132		30-150	B



Project Name: AEROVOX NEW BR WELLS**Lab Number:** L1511447**Project Number:** 39744051.20005**Report Date:** 06/02/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1511447-01A	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8082-10(365)
L1511447-01B	Amber 1000ml unpreserved	A	7	4.1	Y	Absent	MCP-8082-10(365)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511447
Report Date: 06/02/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511447
Report Date: 06/02/15

Data Qualifiers

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

Project Name: AEROVOX NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511447
Report Date: 06/02/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE _____ OF _____



8 Walkup Drive
Westboro, MA 01581
Tel: 508-895-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-622-9300

Client Information

Client: **ARECOM**

Address: 1155 Elm St, Suite 401

Manchester, NH 03101

Phone: 603-606-4800

Email: jquith@arecom.com

Additional Project Information:

CVOC only

Project Information

Project Name: **Acron's New BA wells**

Project Location: **New Bedford MA**

Project #: **39744051, 20005**

Project Manager: **S. LeClair / M. Wade**

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Date Rec'd in Lab: **5/8/15**

Report Information - Data Deliverables

ADEX EMAIL

Same as Client info PO #:

ALPHA Job #: **L1510007**

Billing Information

Regulatory Requirements & Project Information Requirements

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

Criteria

ANALYSIS	CVOC: <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	Sample Comments
1									
2								Hold PCBs	5
3								Hold PCBs	5
3								Hold PCBs	5
3								Hold PCBs	5
3								Hold PCBs	5
3								Hold PCBs	5
3								Hold PCBs	5

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials
11447-01	Trip Blank	5/7/15	0800	TB	JAC
-02	MW-33B (32-52')	↓	1300	GW	JAC
-03	MW-33B (52-72')	↓	1500	GW	JAC
-01	MW-33B (72-92')	5/8/15	1000	GW	JAC
-05	MW-33B (92-112')	↓	1300	GW	JAC
-06	MW-33B (112-132')	↓	1530	GW	JAC

- Container Type**
- P= Plastic
 - A= Amber glass
 - V= Vial
 - G= Glass
 - B= Bacteria cup
 - C= Cube
 - O= Other
 - E= Encore
 - D= BOD Bottle
- Preservative**
- A= None
 - B= HCl
 - C= HNO₃
 - D= H₂SO₄
 - E= NaOH
 - F= MeOH
 - G= NaHSO₄
 - H= Na₂S₂O₃
 - I= Ascorbic Acid
 - J= NH₄Cl
 - K= Zn Acetate
 - O= Other

Container Type **V**
Preservative **B**

Relinquished By:

Received By:

Date/Time

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



ANALYTICAL REPORT

Lab Number:	L1511448
Client:	AECOM 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEVOVOX- NEW BR WELLS
Project Number:	39744051.20005
Report Date:	06/02/15

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

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



Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511448
Report Date: 06/02/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1511448-01	MW-33B (272-292)	WATER	NEW BEDFORD, MA	05/15/15 14:10	05/15/15



Project Name: AEVOVOX- NEW BR WELLS

Lab Number: L1511448

Project Number: 39744051.20005

Report Date: 06/02/15

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511448
Report Date: 06/02/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511448
Report Date: 06/02/15

Case Narrative (continued)

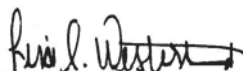
MCP Related Narratives

PCBs

L1511448-01 contains peaks which match the retention times for Aroclor 1242, but do not match the area ratios typical for this aroclor. The result for Aroclor 1242 is reported as "weathered".

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

Authorized Signature:



Lisa Westerlind

Title: Technical Director/Representative

Date: 06/02/15

ORGANICS

PCBS

Project Name: AEVOVOX- NEW BR WELLS**Lab Number:** L1511448**Project Number:** 39744051.20005**Report Date:** 06/02/15**SAMPLE RESULTS**

Lab ID: L1511448-01
Client ID: MW-33B (272-292)
Sample Location: NEW BEDFORD, MA
Matrix: Water
Analytical Method: 97,8082
Analytical Date: 05/28/15 20:21
Analyst: TQ

Date Collected: 05/15/15 14:10
Date Received: 05/15/15
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 05/28/15 01:26
Cleanup Method: EPA 3665A
Cleanup Date: 05/28/15
Cleanup Method: EPA 3660B
Cleanup Date: 05/28/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	3.64		ug/l	0.250	--	1	A
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	ND		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.250	--	1	A
Aroclor 1262	ND		ug/l	0.250	--	1	A
Aroclor 1268	ND		ug/l	0.250	--	1	A
PCBs, Total	3.64		ug/l	0.250	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	45		30-150	B
Decachlorobiphenyl	48		30-150	B

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511448
Report Date: 06/02/15

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 97,8082A
 Analytical Date: 05/28/15 23:02
 Analyst: TQ

Extraction Method: EPA 3510C
 Extraction Date: 05/28/15 01:26
 Cleanup Method: EPA 3665A
 Cleanup Date: 05/28/15
 Cleanup Method: EPA 3660B
 Cleanup Date: 05/28/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG788571-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.250	--	A
Aroclor 1262	ND		ug/l	0.250	--	A
Aroclor 1268	ND		ug/l	0.250	--	A
PCBs, Total	ND		ug/l	0.250	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	140		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	116		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511448
Report Date: 06/02/15

Parameter	LCS %Recovery	Qual	LCS D %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch: WG788571-2 WG788571-3									
Aroclor 1016	68		75		40-140	10		20	A
Aroclor 1260	95		96		40-140	1		20	A

Surrogate	LCS %Recovery	Qual	LCS D %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		73		30-150	A
Decachlorobiphenyl	150		157	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		65		30-150	B
Decachlorobiphenyl	138		132		30-150	B



Project Name: AEVOVOX- NEW BR WELLS**Lab Number:** L1511448**Project Number:** 39744051.20005**Report Date:** 06/02/15**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal**Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1511448-01A	Amber 1000ml unpreserved	A	7	2.6	Y	Absent	MCP-8082-10(365)
L1511448-01B	Amber 1000ml unpreserved	A	7	2.6	Y	Absent	MCP-8082-10(365)

*Values in parentheses indicate holding time in days

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511448
Report Date: 06/02/15

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

Report Format: Data Usability Report



Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511448
Report Date: 06/02/15

Data Qualifiers

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

Project Name: AEVOVOX- NEW BR WELLS
Project Number: 39744051.20005

Lab Number: L1511448
Report Date: 06/02/15

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 16, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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



CHAIN OF CUSTODY

PAGE 1 OF 1

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-522-9300

8 Walkup Drive
Westboro, MA 01581
Tel: 508-998-9220

Client Information

Client: **AECOM**

Address: **1155 Elm St, Suite 401**

Manchester, NH 03101

Phone: **(603) 606-4800**

Email: **judith.leclair@aecom.com**

Additional Project Information:

CVOC only

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due:

Project Information

Project Name: **Aerovox - New BR wells**

Project Location: **New Bedford, MA**

Project #: **39744051.2005**

Project Manager: **J. LeClair/M. Wade**

ALPHA Quote #:

Date Rec'd in Lab: **5/15/15**

Report Information - Data Deliverables

ADEX EMAIL

Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

Criteria

ANALYSIS	CVOC: 2800, 624, 624, 624, 624	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS	EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPCB <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	SAMPLE INFO	TOTAL # BOTTLES
1									Filtration <input type="checkbox"/> Field <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do PID	1
2									400 ppm	5
3									880 ppm	5

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials
11448-01	TRIP BLANK	5-15-15	0800	TB	
02	MW-338 (252-272)	0910	0910	GW	JKH
-01	MW-338 (272-292)	1410	1410	GW	JKH

- Container Type**
 P= Plastic
 A= Amber glass
 V= Vial
 G= Glass
 B= Bacteria cup
 C= Cube
 O= Other
 D= BOD Bottle
- Preservative**
 A= None
 B= HCl
 C= HNO₃
 D= H₂SO₄
 E= NaOH
 F= MeOH
 G= NaHSO₄
 H= Na₂S₂O₃
 I= Ascorbic Acid
 J= NH₄Cl
 K= Zn Acetate
 O= Other

Requisitioned By:

Date/Time

Date/Time

Received By:

Date/Time

Apprentice 5/15/15 1705 **Judith LeClair** 5/15/15 1705

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

APPENDIX C

Hager-Richter Geoscience Resistivity and Mise-a-la-Masse Report

**GEOPHYSICAL SURVEY
FORMER AEROVOX PROPERTY
740 BELLEVILLE AVENUE
NEW BEDFORD, MASSACHUSETTS**

Prepared for:

AECOM
12420 Milestone Center Drive
Germantown, Maryland 20876

Prepared by:

Hager-Richter Geoscience, Inc.
8 Industrial Way - D10
Salem, New Hampshire 03079

File 15MH10
April, 2015

Geophysical Survey
Former Aerovox Property
740 Belleville Avenue
New Bedford, Massachusetts
File 15MH10 Page 2

The area of interest (AOI) for the geophysical survey was specified by AECOM as the eastern portion of the former Aerovox site. The AOI is located entirely on the asphalt pavement cap. ERI data were acquired along two SW-NE transects and MALM data were acquired on a 10-foot grid in the vicinity of MW-15D. The locations of the ERI transects and the MALM survey area are shown in Figure 2. AECOM was advised by H-R prior to the survey that data from the geophysical methods specified by AECOM (ERI and MALM) are significantly affected by the presence of buried utilities, buried structures (both metallic and non-metallic), surface metal objects, asphalt and concrete pavements, and live electric lines, all of which are present in the AOI at the former Aerovox site.

OBJECTIVE

The objectives of the geophysical survey were: 1) to determine the depth of bedrock; 2) to detect fractures within the bedrock; and 3) delineate the extent of a contaminated groundwater plume in an area of interest specified by AECOM around monitoring well MW-15D.

THE SURVEY

Michael Howley, P.G., Steven Grant, P.G., and Bryan Carnahan of Hager-Richter conducted the geophysical survey on April 8 and 9, 2015. The project was coordinated with Mr. Chris Beza, P.G., and Ms. Judith LeClair, P.G., both of AECOM. Mr. Jeff Harshman, also of AECOM, was present for the duration of the field work. Data analysis and interpretation were completed at the Hager-Richter offices. Original data and field notes reside in the Hager-Richter files and will be retained for a minimum of three years.

As indicated above, the geophysical survey consisted of Electrical Resistivity Imaging (ERI) along two traverses totaling approximately 1,100 linear feet, and a Mise-a-la-masse (MALM) survey in an approximately 110-foot by 110-foot area in the vicinity of MW-15D. MALM data were acquired at 143 measurement stations with 10-foot spacing between stations.

The positions of the ERI transects and the MALM stations were recorded using a Trimble Geo 7X GPS receiver outfitted with a Zephyr 2 external antenna. The locations of the ERI transects and the MALM survey area are shown on Figure 2.

EQUIPMENT & PROCEDURES

Electrical Resistivity Imaging. We use an AGI Super Sting R8 earth resistivity instrument with an addressable multi-electrode system for electrical imaging surveys. ERI incorporates both vertical electrical sounding and lateral profiling to produce a data set suitable to create a two-dimensional resistivity model. The Super Sting R8 allows automatic

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Former Aerovox Property
740 Belleville Avenue
New Bedford, Massachusetts
File 15MH10 Page 3

measurement of several types of array, i.e., most combinations of current and voltage electrode connections can be controlled by the Super Sting system. Fifty-six electrodes, or any multiple of 14 electrodes (with a maximum of 254 electrodes) can be used with the Super Sting system.

ERI data were acquired using both the Dipole-Dipole and Schlumberger array configurations and an electrode spacing 10 feet. Although only the Dipole-Dipole array was specified by AECOM, we acquired the Schlumberger array as well after viewing the data in the field. These array configurations and electrode spacings provide approximate depths of exploration of about 120 feet and 80 feet respectively, for the Dipole-Dipole and Schlumberger arrays. Data were acquired along two transects totaling about 1,100 feet. The locations of the resistivity lines are shown on Figure 2.

The Super Sting R8 earth resistivity instrument measures the contact resistance of each electrode, and, if the resistance of any electrode is judged to be excessive, salt water is poured on the ground around that electrode to decrease the surface resistance. After the contact resistance of all electrodes is satisfactory, the data are acquired under program control. The electrodes are moved to the next survey line and the procedures repeated.

The resulting data sets are inverted using AGI EarthImager 2D, commercially licensed software, to create two-dimensional resistivity models. Apparent resistivity values are calculated with a forward modeling subroutine, and a smoothness-constrained least-squares optimization routine is used to invert the data. Both finite-difference and finite-element forward modeling techniques are available in the software.

Although there are many ways to display the results of 2D resistivity inversions, the essential element is a plot of the distribution of resistivity as a function of depth and distance along the survey line. The choice of scales affects the appearance of the plots and further emphasizes particular aspects of the results, and the choice is most commonly between linear and logarithmic scales, although others could be made. A resistivity image profile can be made to highlight either local detail or regional information.

The interpretation of resistivity plots is based on the experience of the interpreter, his/her knowledge of typical values or ranges of values of resistivity for the types of geologic materials expected below a survey line. The interpreter uses the measured values to infer what materials are present - including soil and/or rock types, porosity, permeability, presence or absence of contamination, the presence of such geological features as faults and fracture zones, and the presence of such man-made features as tar pits, concrete walls, slurry walls, and former lagoons.

Geophysical Survey
Former Aerovox Property
740 Belleville Avenue
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File 15MH10 Page 4

Mise-A-La-Masse. The Mise-a-la-masse (MALM) method, also called "charged body potential method," maps the distribution and magnitude of self-potentials caused in an electrically conducting body due to the injection of electrical current in the body.

We use the AGI Sting R1 resistivity instrument, four stainless steel electrodes, and well insulated cables. For this method, two electrodes (A and B) are used to inject current and two other electrodes (M and N) are used to measure the potential. One current electrode (A) is placed in contact with the conductive body, for this survey at the bottom of MW-15D. The other current electrode (B), called the current reference electrode, is placed at a large distance from the survey grid. For this survey, electrode B was placed approximately 775 feet southwest of MW-15D on the Titleist property. The voltage distribution is measured around the conductive body using one reference potential electrode (N) placed at a large distance from the survey grid (diametrically opposed to the current reference electrode), and the other potential electrode (M) which is moved between stations to be surveyed. For this survey, electrode N was placed approximately 300 feet north of MW-15D on the Precix property. The location of the MALM survey area is shown on Figure 2.

We recorded two or three measurements at each grid point within the survey area. Each measurement consists of an average of four readings of the potential ($n=4$), along with the standard deviation (%) between the four readings. Measurements with high standard deviation between readings ($>5\%$) were repeated. The measurement with the lowest standard deviation between readings at each grid point was used for contouring the potential distribution.

Processing MALM data consists of contouring the raw data using suitable scales to create lines of equipotential. The interpretation of MALM data is based on pattern recognition coupled with knowledge that potential gradients are lower in conducting bodies than in non- and poorly-conducting bodies. Lines of equipotential should be concentric around a regularly shaped conducting body in a homogenous medium. In the case of an irregularly shaped body, such as the target contaminant plume, equipotential lines are distorted around the extent of the feature. The distribution of equipotential lines measured from the MALM survey can therefore indicate the spatial extent of the conductive body of interest.

LIMITATIONS OF THE METHODS

Electrical Resistivity Imaging. As with any of the electrical geophysical methods, resistivity data are subject to certain limitations, including site surface and subsurface conditions and structures, electrical and "geological" noise, and target depth and size. Interference from such cultural features as buildings, fencing, and underground and overhead power lines is common at many sites, particularly at active industrial sites. Thus, for certain applications, the use of the resistivity method in urban settings might be inappropriate.

Geophysical Survey
Former Aerovox Property
740 Belleville Avenue
New Bedford, Massachusetts
File 15MH10 Page 6

and the inverted resistivity profiles are shown for both electrode configurations in Figures 3 and 4.

ERI Data Quality. The table below details the inversion of the ERI data. The default criteria for data removal for surface ERI data were used for the initial settings, and a smooth model inversion was used. A large portion of the dipole-dipole data were removed from both ERI Lines prior to inversion, mostly due to having a minimum voltage of less than the defined 0.2 mV. The raw .stg data files will be electronically transmitted to AECOM separately from this report.

Line	Array Type	Inversion Method	# of Data Points Removed	Number of Iterations	Fit of Resistivity Model	
					RMS Error	L2-Norm
ERI Line 1	Dipole-Dipole	smooth model inversion	243 of 746	5	30.85%	72.53
ERI Line 1	Schlumberger	smooth model inversion	0	6	18.21%	36.80
ERI Line 2	Dipole-Dipole	smooth model inversion	214 of 697	4	48.41%	217.73
ERI Line 2	Schlumberger	smooth model inversion	0	3	64.37%	460.12

The horizontal axes in Figures 3 and 4 are the profile distance along the ground surface, and the vertical axes are depth in feet. The red and orange colors typically indicate relatively high resistivity materials such as dry sand and gravel or bedrock, and the blue colors typically indicate relatively low resistivity materials such as saturated or conductive soils and clays. The intermediate colors (yellow and green) typically indicate moderately conductive materials such as partially saturated or moist soils and zones of fractured bedrock. The presence of parallel conductive features such as metallic utilities or fences within approximately half of the array length can adversely affect the quality of ERI data.

Utility plans provided by AECOM, shown in Figure 6, indicate that ERI Line 1 has crossing subsurface utilities at about 22 feet (electric), 220 feet (water), 315 feet (reinforced concrete drain), and a parallel utility (water) from about 410 feet to 480 feet along the line. The inverted dipole-dipole and Schlumberger resistivity profiles for ERI Line 1 (Figure 3) both show large, near-surface resistivity lows at the water line crossing at 220 feet and the sub-parallel water line at 410-480 feet. A large deeper resistivity low at 350 to 420 feet is likely due to the effect of the water line approaching the transect in this area. Anomalies attributed to the

Geophysical Survey
Former Aerovox Property
740 Belleville Avenue
New Bedford, Massachusetts
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subsurface utilities dominate the resistivity profiles, and it is nearly impossible to interpret other meaningful information from the profiles for ERI Line 1.

Utility plans provided by AECOM, shown in Figure 6, indicate that ERI Line 2 has a parallel sanitary sewer line from the start of the line through 315 feet where a former pump house vault is present in the subsurface. Another sub-parallel sanitary sewer line is present from the former vault at 315 to the end of the line. A sub-parallel water line is present along the line from about 270 feet to the end of the line and crosses the ERI line at 410 feet along the line. The inverted dipole-dipole and Schlumberger resistivity profiles for ERI Line 2 (Figure 4) both show large, near-surface resistivity lows at the location of the former pump house vault at 315 feet and along the sub-parallel water line and we attribute these anomalies to the presence of the utilities. A broad deep resistivity low present from about 0-270 feet along the profile corresponds to the location of the parallel sanitary sewer. Anomalies attributed to the subsurface utilities dominate the resistivity profiles, and it is nearly impossible to interpret meaningful information from the profiles for ERI Line 2.

The bedrock surface and locations of bedrock fractures could not reliably be detected by the ERI survey due to interference caused by conductive utilities present in the subsurface.

Mise-a-la-masse. The location of the Mise-a-la-masse (MALM) survey area is shown in Figure 2, and the MALM data are shown as a color contour plot of potential distribution in Figure 5. The MALM survey area was limited by an adjacent property north of the site where access was not available, and by sheet-pile walls that extends from ground surface to a depth of 20 feet along both the northeastern and eastern boundaries of the survey area.

The MALM data are presented as the potential difference between the infinite potential electrode (N) placed approximately 300 feet north of MW-15D and the roving measurement potential electrode (M) for each data station. A 10mA current was injected into the target contaminant plume identified by AECOM at a depth of 31 feet in MW-15D.

On the basis of the shape of the equipotential lines shown in Figure 5, we infer that the conductive body is present mostly to the southwest of MW-15D. Whether the conductive body is also present on the adjacent property to the north can not be determined from the MALM data. The presence of the sheet-pile wall along the north and east boundaries of the survey area and a mapped water line bisecting the area do not appear to have negatively impacted the MALM data.

Geophysical Survey
Former Aerovox Property
740 Belleville Avenue
New Bedford, Massachusetts
File 15MH10 Page 8

CONCLUSIONS

Based on the geophysical survey performed by Hager-Richter Geoscience at the Former Aerovox Site in New Bedford, Massachusetts for AECOM, we conclude that:

- The ERI survey did not reliably detect the bedrock surface or the locations of bedrock fractures, likely due to the presence of subsurface metallic utilities near the ERI line locations.
- A conductive body, likely the target contaminant plume, was detected extending to the southwest of MW-15D on the basis of MALM data acquired at the Site.

LIMITATIONS ON USE OF THE REPORT

This Report was prepared for the exclusive use of AECOM (Client). No other party shall be entitled to rely on this Report or any information, documents, records, data, interpretations, advice or opinions given to Client by Hager-Richter Geoscience, Inc. (H-R) in the performance of its work. The Report relates solely to the specific project for which H-R has been retained and shall not be used or relied upon by Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of H-R. Any unpermitted use by Client or any third party shall be at Client's or such third party's own risk and without any liability to H-R.

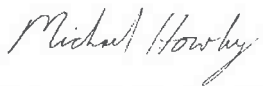
H-R has used reasonable care, skill, competence and judgment in the preparation of this Report consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by H-R should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

Except as expressly provided in this limitations section, H-R makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

Geophysical Survey
Former Aerovox Property
740 Belleville Avenue
New Bedford, Massachusetts
File 15MH10 Page 9

If you have any questions or comments on this letter Report, please contact us at your convenience. It has been a pleasure to work with AECOM on this project. We look forward to working with you again in the near future.

Sincerely yours,
HAGER-RICHTER GEOSCIENCE, INC.



Michael W. Howley, P.G.
Geophysicist

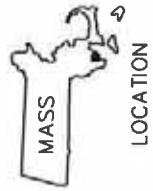


Dorothy Richter, P.G.
President

Attachments: Figures 1-6



APPROXIMATE SCALE (feet)



NOTE:

Modified from Google Earth Pro aerial photograph.

Figure 1 General Site Location Former Aerovox Property 740 Belleville Avenue New Bedford, Massachusetts	
File 15MH10	April, 2015
HAGER-RICHTER GEOSCIENCE, INC. Salem, New Hampshire	

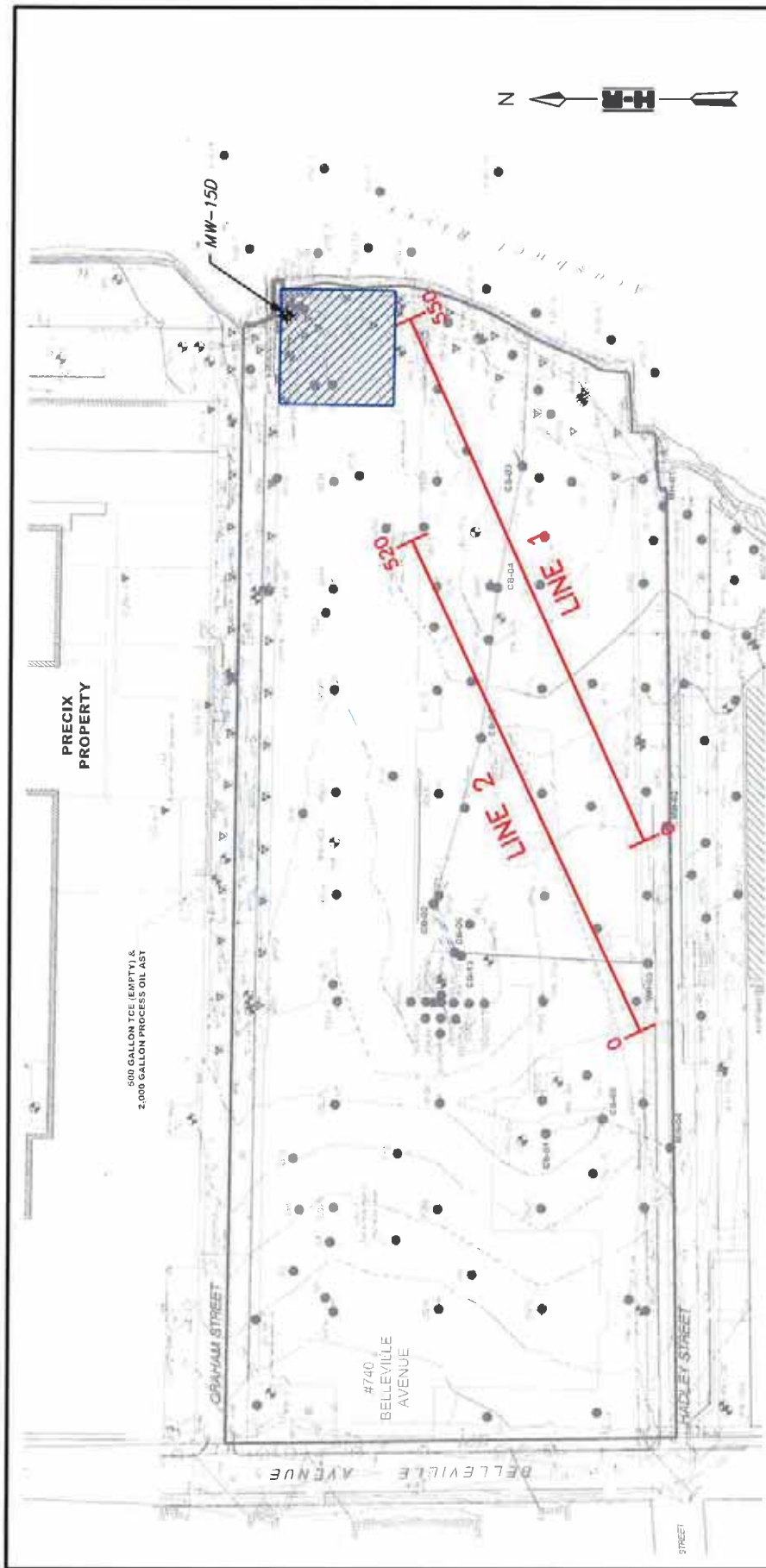


Figure 2
 Site Plan
 Former Aerovox Property
 740 Belleville Avenue
 New Bedford, Massachusetts
 File 15MH10 April, 2015
 HAGER-RICHTER GEOSCIENCE, INC.
 Salem, New Hampshire

LEGEND

-  ERI SURVEY LINE
-  APPROXIMATE LIMITS OF M&M SURVEY AREA
-  MONITORING WELL



NOTE:
 Modified from site plan provided by AECOM, identified as Xref_Site Plan Base.dwg.

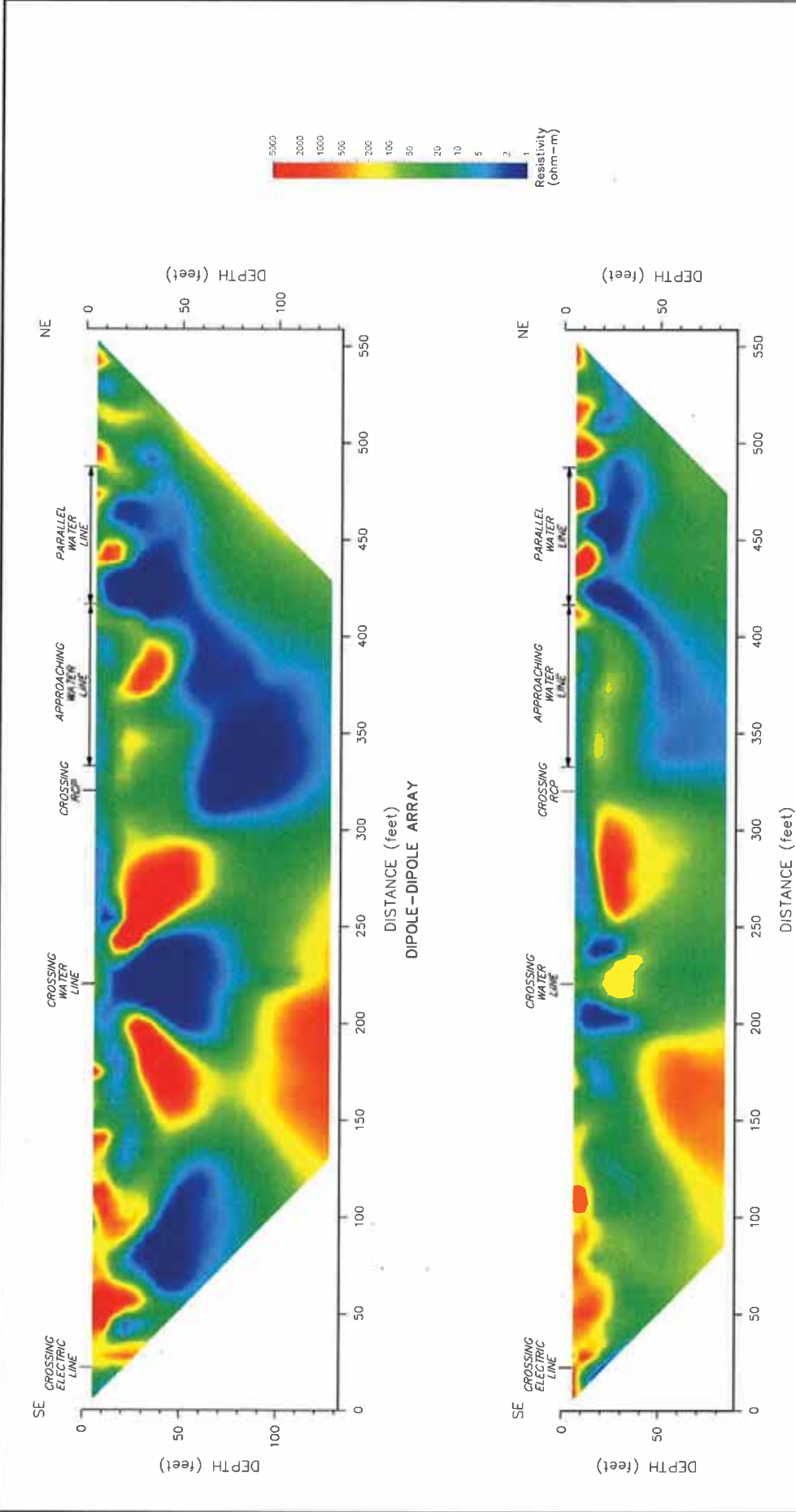
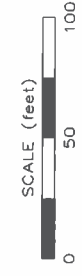


Figure 3
 Resistivity Line 1
 Former Aerovox Property
 740 Belleville Avenue
 New Bedford, Massachusetts
 File 15MH10 April, 2015
 HAGER-RICHTER GEOSCIENCE, INC.
 Salem, New Hampshire



NOTES:

1. Resistivity data acquired using an AGI SuperSting RB with 10 foot electrode spacing.
2. Resistivity data processed and inverted using EarthImager2D Software by AGI.

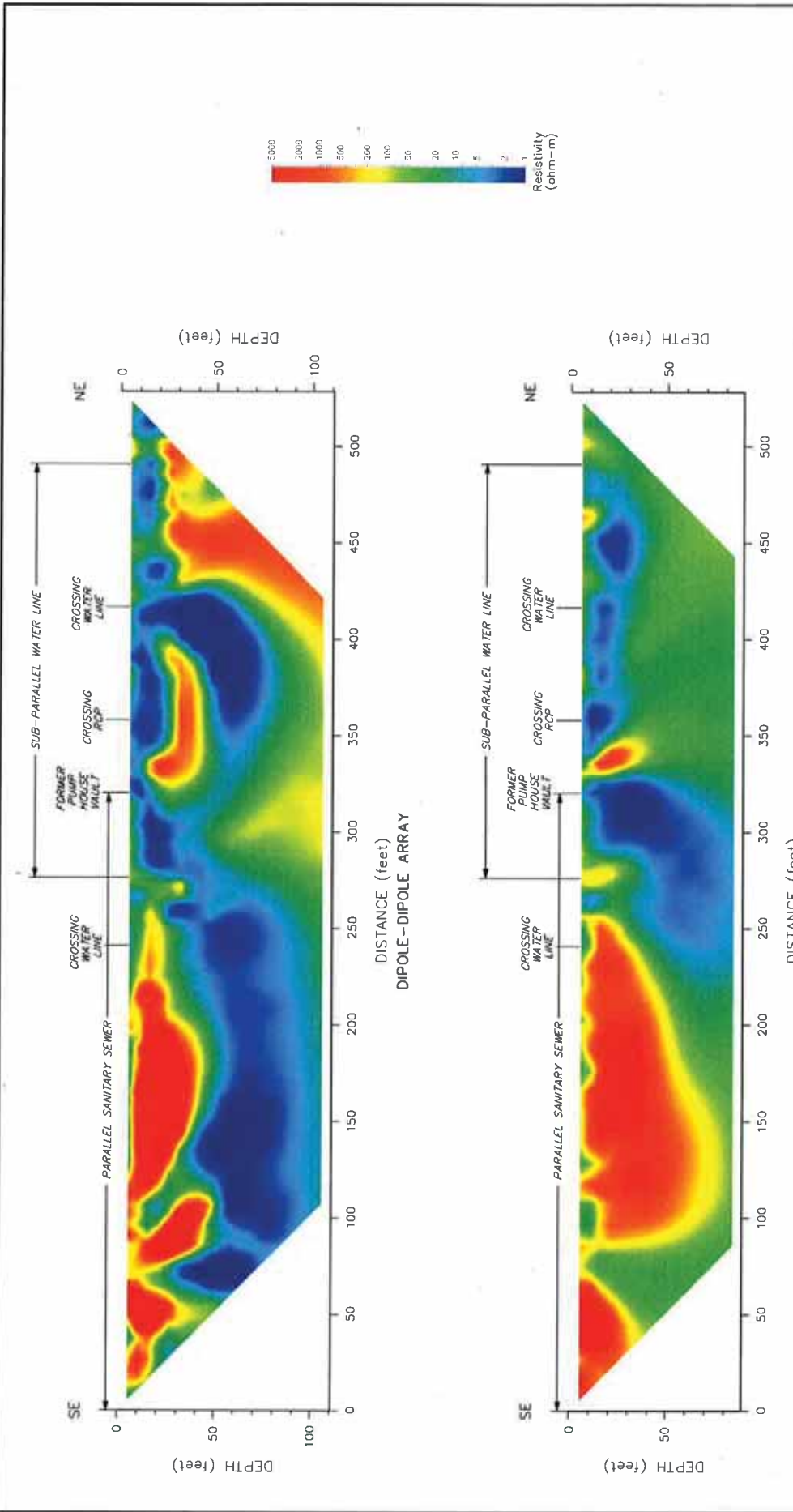


Figure 4
 Resistivity Line 2
 Former Aerovox Property
 740 Belleville Avenue
 New Bedford, Massachusetts
 File 15MH10 April, 2015
 HAGER-RICHTER GEOSCIENCE, INC.
 Salem, New Hampshire

NOTES:

1. Resistivity data acquired using an AGI SuperSling R8 with 10 foot electrode spacing.
2. Resistivity data processed and inverted using EarthImager2D Software by AGI.

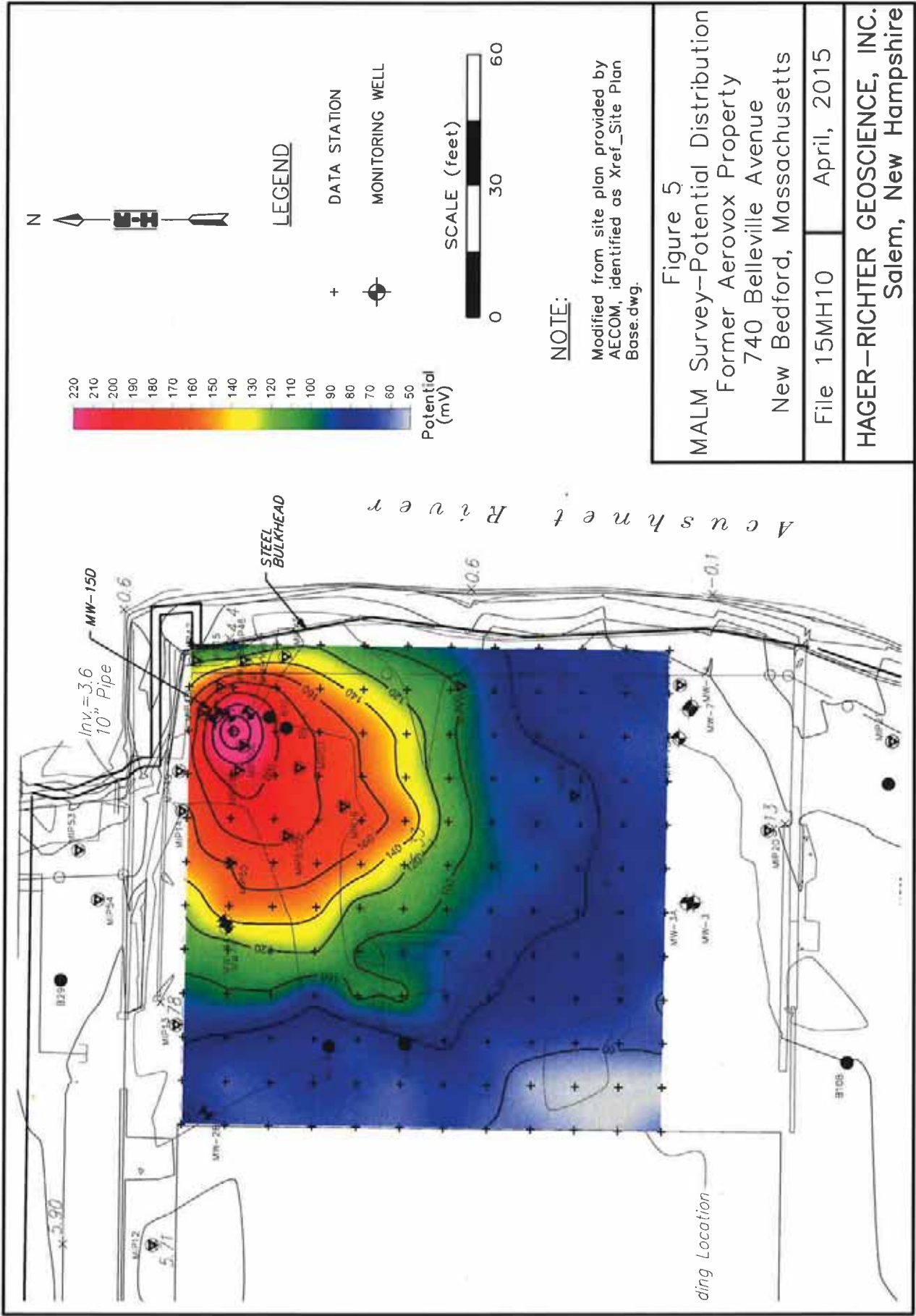


Figure 5
 MALM Survey-Potential Distribution
 Former Aeroxox Property
 740 Belleville Avenue
 New Bedford, Massachusetts
 File 15MH10 April, 2015
 HAGER-RICHTER GEOSCIENCE, INC.
 Salem, New Hampshire

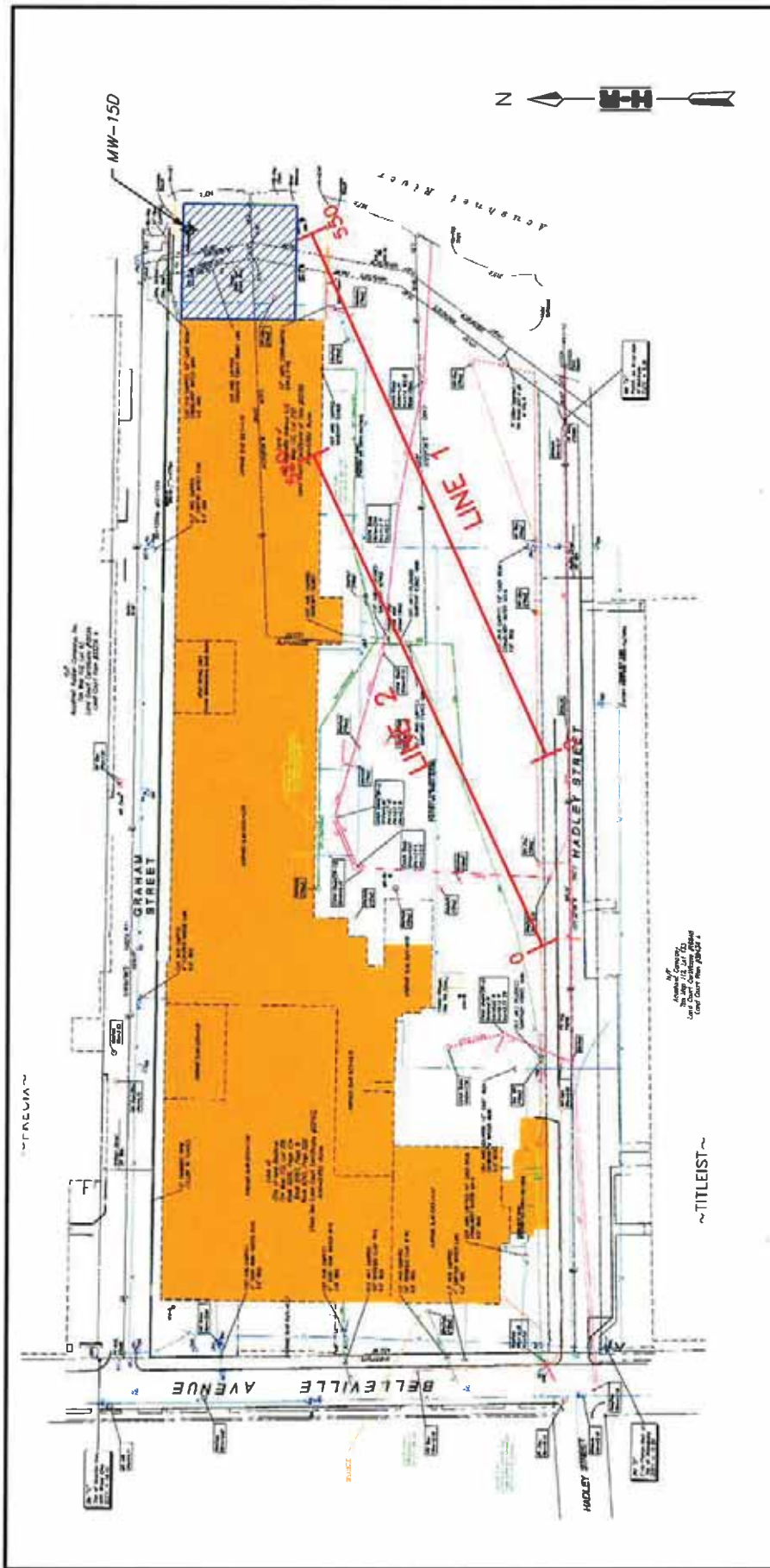





Figure 6
 Site Utilities
 Former Aerovox Property
 740 Belleville Avenue
 New Bedford, Massachusetts
 File 15MH10 April, 2015
 HAGER-RICHTER GEOSCIENCE, INC.
 Salem, New Hampshire

LEGEND

-  ERI SURVEY LINE
-  APPROXIMATE LIMITS OF MALM SURVEY AREA
-  MONITORING WELL



NOTE:
 Modified from site plan provided by AECOM, identified as As-Built_SubSurface-Conditions_Mirafi.pdf.

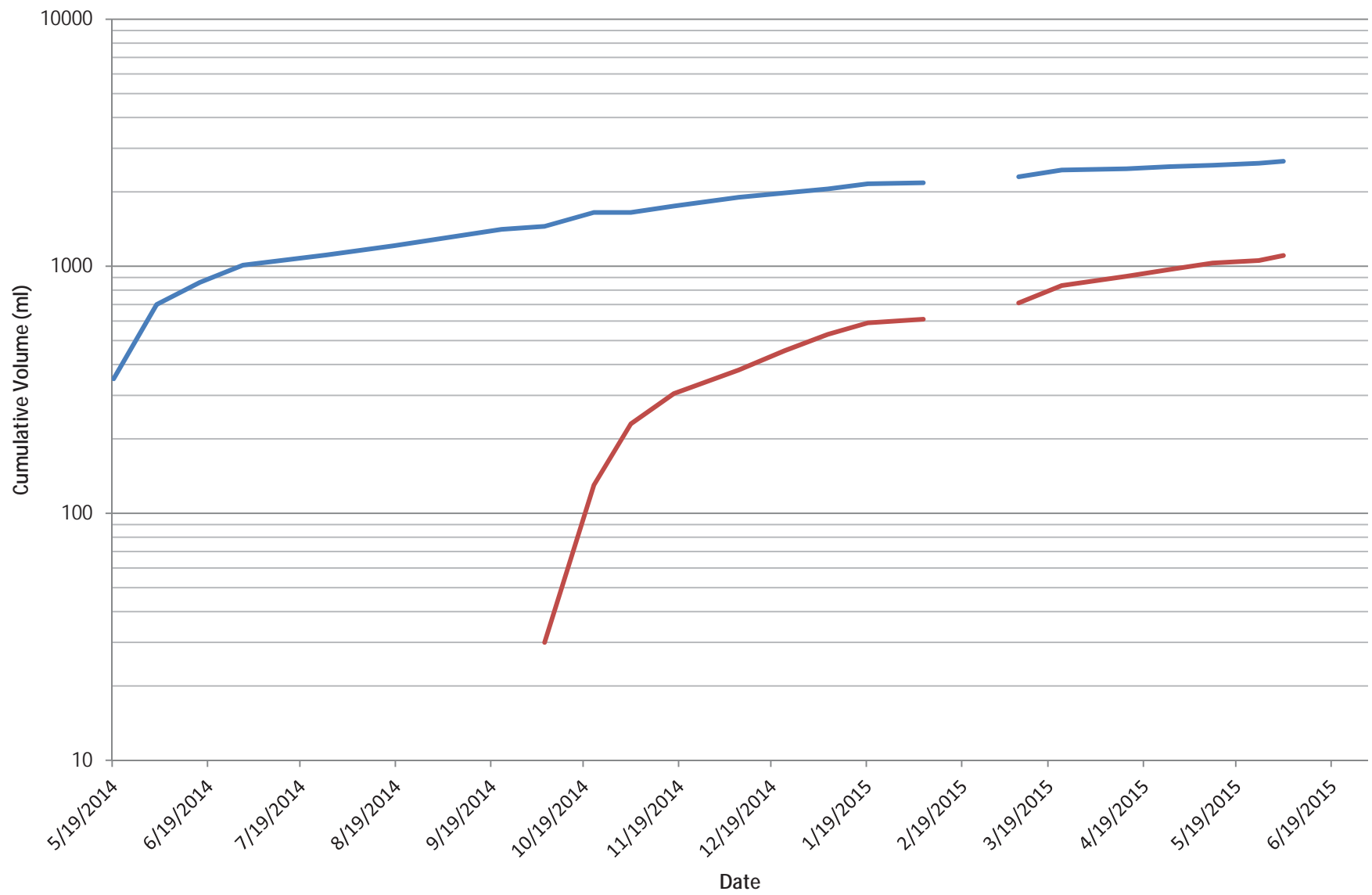
APPENDIX D

DNAPL Recovery Graphs

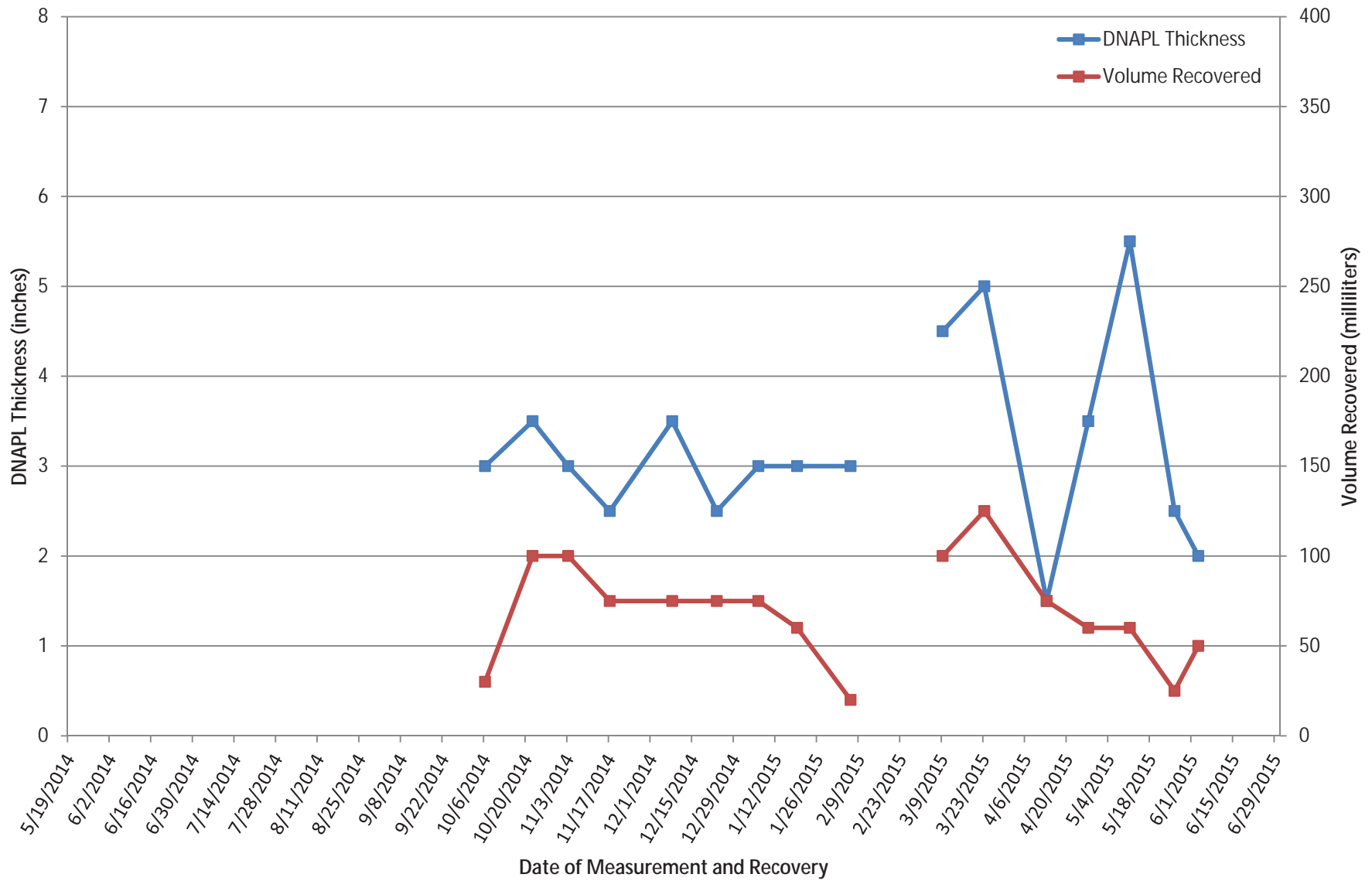
Aerovox Site

Cumulative Volume of DNAPL Recovered By Monitoring Well

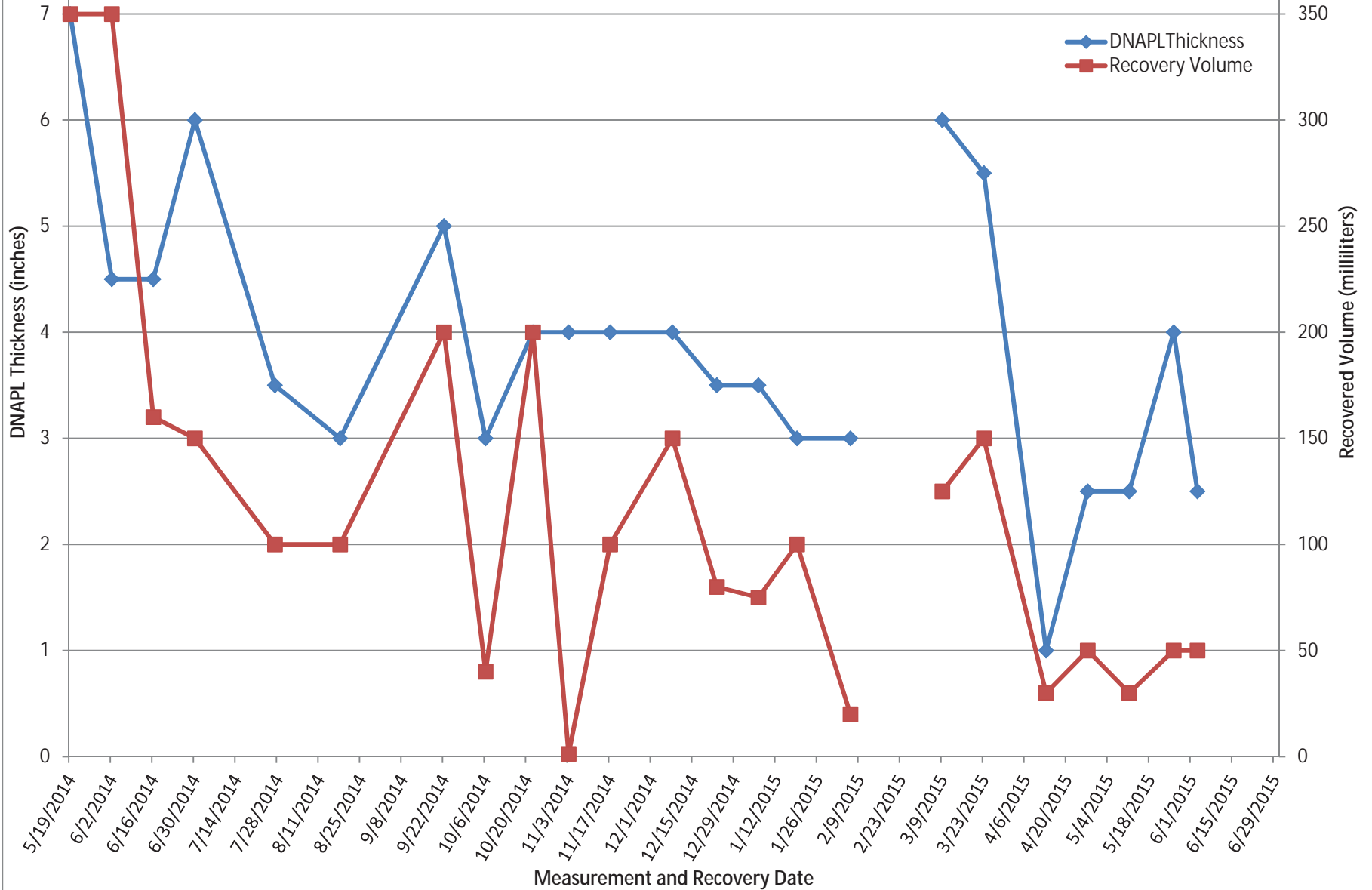
MW-15D
MW-15B



Aerovox Site MW-15B DNAPL Thickness and Recovery by Event



Aerovox Site MW-15D DNAPL Measurement and Recovery by Event



APPENDIX E

DNAPL Analytical Reports

DNAPL Mobility Calculations

DNAPL Mobility Figures

DNAPL Analytical Reports



Torkelson Geochemistry, Inc.

2528 S. Columbia Place
Tulsa, OK 74114-3233

Phone: 918-749-8441
Fax: 918-749-6005

e-mail: BTorkelson@torkelsongeochemistry.com

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project: Former Aerovox Facility, MCP/21E

Location: 740 Belleville Avenue, New Bedford, MA

Proj. No.: 39744051

P.O.: 39744051,40003

Sampled By: Hoch/J. Harshman

Report/Bill To: Bill: URS Corporation

Address: PO Box 203970, Austin, TX 78720

* Please Add Attention: "Judith LeClair" to Invoice, along with the Project/PO number; report to 1155 Elm Street, Suite 401, Manchester, NH 03101

Phone: 603-606-4818

Fax: 603-606-4801

e-mail: Judith.LeClair@urs.com

Additional Instructions

This is a hazardous material containing PCBs and chlorinated volatile organic compounds. Please review chemical analytical data (sent via email) for exact constituent concentrations and use all appropriate safety measures and personal protective equipment for working with this material.

Requested Turn-Around Time: Normal

ITEM NO.	SAMPLE DESCRIPTION	DATE	MATRIX	LAB NO.	Total # of Vials	PRESERVATIVES		ANALYSES REQUESTED							REMARKS
						None	X	GC Characterization	Density	Viscosity	Water Surface Tension	NAPL Surface Tension	NAPL/Water Interfac. Tens.	Lead	
1	MW-15B/MW-15D	3/9/15 3/13/2015	DNAPL/ GW		6		X	X	X	X	X	X			2 vials of DNAPL (MW-15D, MW-15B), 4 vials of GW (2 from MW-15B, 2 from MW-15D); Please use sample from MW-15D as primary; MW-15B as backup
2															
3															
4															
5															
6															
7															
8															
9															
10															

RELINQUISHED BY	DATE	TIME	ACCEPTED BY	DATE	TIME
Judith LeClair	3/18/15	12:00 pm	Paul Ex Ground	3/24-15	11:45
Paul Ex Ground			Paul Ex Ground		

Torkelson Geochemistry, Inc.

Physical Properties Measurements

Sample	TGI Job Number	Density of NAPL (gm/ml)	Viscosity of NAPL (centipoise)	Surface Tension Air/Water (dynes/cm)	Interfacial Tension Water/NAPL (dynes/cm)	Surface Tension Air/NAPL (dynes/cm)	Temperature of Measurements
MW-15B/MW-15D	15030	1.2083	NA	70.4	15.0*	26.3	60F

NA = Not Analyzed

* = Water over DNAPL



ANALYTICAL REPORT

Lab Number:	L1406115
Client:	URS Corporation 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX
Project Number:	39744051.20003
Report Date:	03/31/14

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1406115-01	TB-05	NEW BEDFORD, MA	03/24/14 00:00
L1406115-02	AX-GW-MW3-032414	NEW BEDFORD, MA	03/24/14 09:05
L1406115-03	AX-GW-MW15B-032414	NEW BEDFORD, MA	03/24/14 10:50
L1406115-04	AX-GW-MW7A-032414	NEW BEDFORD, MA	03/24/14 10:00
L1406115-05	AX-GW-MW7-032414	NEW BEDFORD, MA	03/24/14 11:25
L1406115-06	AX-GW-MW15D-032414	NEW BEDFORD, MA	03/24/14 11:50
L1406115-07	AX-GW-DUP4-032414	NEW BEDFORD, MA	03/24/14 11:55
L1406115-08	AX-DNAPL-MW15D-032414	NEW BEDFORD, MA	03/24/14 12:45
L1406115-09	AX-GW-MW7B-032414	NEW BEDFORD, MA	03/24/14 14:00

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Case Narrative (continued)

MCP Related Narratives

Volatile Organics

In reference to question G:

L1406115-02, -03 and -05 through -09: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The continuing calibration standards, associated with L1406115-01 through -07 and -09, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. A copy of the continuing calibration standards is included as an addendum to this report.

In reference to question I:

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

PCBs

L1406115-03 through -07 and -09 contain peaks which match the retention times for Aroclor 1242, but do not match the area ratios typical for this aroclor. The results for Aroclor 1242 are reported as "weathered".

In reference to question G:

L1406115-03, -05, -06 and -07: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The surrogate recoveries for L1406115-03, -05 through -08 and the WG678281-4 Laboratory Duplicate are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilutions required to quantitate the samples. Re-extraction was not required; therefore, the results of the original analyses are reported.

The WG678281-1 Method Blank, associated with L1406115-08, has a concentration above the reporting limit for Aroclor 1260. Since the sample was non-detect for this target analyte, no further actions were taken. The results of the original analysis are reported.

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Case Narrative (continued)


Non-MCP Related Narratives

Solids, Total Suspended

WG678197: A laboratory duplicate could not be performed due to insufficient sample volume available for analysis.

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

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 03/31/14

ORGANICS

VOLATILES

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

SAMPLE RESULTS

Lab ID:	L1406115-08	D2	Date Collected:	03/24/14 12:45
Client ID:	AX-DNAPL-MW15D-032414		Date Received:	03/24/14
Sample Location:	NEW BEDFORD, MA		Field Prep:	Not Specified
Matrix:	Oil			
Analytical Method:	97,8260C			
Analytical Date:	03/29/14 23:34			
Analyst:	MV			
Percent Solids:	Results reported on an 'AS RECEIVED' basis.			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	24000000		ug/kg	500000	--	1000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	102		70-130



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

SAMPLE RESULTS

Lab ID: L1406115-08 D
 Client ID: AX-DNAPL-MW15D-032414
 Sample Location: NEW BEDFORD, MA
 Matrix: Oil
 Analytical Method: 97,8260C
 Analytical Date: 03/28/14 23:27
 Analyst: MV
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 03/24/14 12:45
 Date Received: 03/24/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/kg	1000000	--	200
1,1-Dichloroethane	ND		ug/kg	150000	--	200
Chloroform	ND		ug/kg	150000	--	200
Carbon tetrachloride	ND		ug/kg	100000	--	200
1,2-Dichloropropane	ND		ug/kg	350000	--	200
Dibromochloromethane	ND		ug/kg	100000	--	200
1,1,2-Trichloroethane	ND		ug/kg	150000	--	200
Tetrachloroethene	13000000		ug/kg	100000	--	200
Chlorobenzene	ND		ug/kg	100000	--	200
1,2-Dichloroethane	ND		ug/kg	100000	--	200
1,1,1-Trichloroethane	ND		ug/kg	100000	--	200
Bromodichloromethane	ND		ug/kg	100000	--	200
trans-1,3-Dichloropropene	ND		ug/kg	100000	--	200
cis-1,3-Dichloropropene	ND		ug/kg	100000	--	200
Bromoform	ND		ug/kg	400000	--	200
1,1,2,2-Tetrachloroethane	ND		ug/kg	100000	--	200
Chloromethane	ND		ug/kg	400000	--	200
Vinyl chloride	ND		ug/kg	200000	--	200
Chloroethane	ND		ug/kg	200000	--	200
1,1-Dichloroethene	ND		ug/kg	100000	--	200
trans-1,2-Dichloroethene	ND		ug/kg	150000	--	200
Trichloroethene	36000000	E	ug/kg	100000	--	200
1,2-Dichlorobenzene	ND		ug/kg	400000	--	200
1,3-Dichlorobenzene	ND		ug/kg	400000	--	200
1,4-Dichlorobenzene	400000		ug/kg	400000	--	200
cis-1,2-Dichloroethene	1500000		ug/kg	100000	--	200
Dichlorodifluoromethane	ND		ug/kg	1000000	--	200
1,2-Dibromoethane	ND		ug/kg	400000	--	200
1,3-Dichloropropane	ND		ug/kg	400000	--	200
1,1,1,2-Tetrachloroethane	ND		ug/kg	100000	--	200
o-Chlorotoluene	ND		ug/kg	400000	--	200



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

SAMPLE RESULTS

Lab ID: L1406115-08 D
 Client ID: AX-DNAPL-MW15D-032414
 Sample Location: NEW BEDFORD, MA

Date Collected: 03/24/14 12:45
 Date Received: 03/24/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/kg	400000	--	200
Hexachlorobutadiene	ND		ug/kg	400000	--	200
1,2,4-Trichlorobenzene	12000000		ug/kg	400000	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	90		70-130

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/28/14 08:12
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06-07,09 Batch: WG678616-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/28/14 08:12
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06-07,09 Batch: WG678616-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/28/14 08:12
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06-07,09 Batch: WG678616-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	121		70-130

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/28/14 06:48
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05 Batch: WG678852-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
Analytical Date: 03/28/14 06:48
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-05 Batch: WG678852-3					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/29/14 10:04
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03 Batch: WG678852-6					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/29/14 10:04
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03 Batch: WG678852-6					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/28/14 14:20
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 08 Batch: WG678879-3					
Methylene chloride	ND		ug/kg	5000	--
1,1-Dichloroethane	ND		ug/kg	750	--
Chloroform	ND		ug/kg	750	--
Carbon tetrachloride	ND		ug/kg	500	--
1,2-Dichloropropane	ND		ug/kg	1800	--
Dibromochloromethane	ND		ug/kg	500	--
1,1,2-Trichloroethane	ND		ug/kg	750	--
Tetrachloroethene	ND		ug/kg	500	--
Chlorobenzene	ND		ug/kg	500	--
Trichlorofluoromethane	ND		ug/kg	2000	--
1,2-Dichloroethane	ND		ug/kg	500	--
1,1,1-Trichloroethane	ND		ug/kg	500	--
Bromodichloromethane	ND		ug/kg	500	--
trans-1,3-Dichloropropene	ND		ug/kg	500	--
cis-1,3-Dichloropropene	ND		ug/kg	500	--
1,1-Dichloropropene	ND		ug/kg	2000	--
Bromoform	ND		ug/kg	2000	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	500	--
Benzene	ND		ug/kg	500	--
Toluene	ND		ug/kg	750	--
Ethylbenzene	ND		ug/kg	500	--
Chloromethane	ND		ug/kg	2000	--
Bromomethane	ND		ug/kg	1000	--
Vinyl chloride	ND		ug/kg	1000	--
Chloroethane	ND		ug/kg	1000	--
1,1-Dichloroethene	ND		ug/kg	500	--
trans-1,2-Dichloroethene	ND		ug/kg	750	--
Trichloroethene	ND		ug/kg	500	--
1,2-Dichlorobenzene	ND		ug/kg	2000	--
1,3-Dichlorobenzene	ND		ug/kg	2000	--
1,4-Dichlorobenzene	ND		ug/kg	2000	--



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/28/14 14:20
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 08 Batch: WG678879-3					
Methyl tert butyl ether	ND		ug/kg	1000	--
p/m-Xylene	ND		ug/kg	1000	--
o-Xylene	ND		ug/kg	1000	--
cis-1,2-Dichloroethene	ND		ug/kg	500	--
Dibromomethane	ND		ug/kg	2000	--
1,2,3-Trichloropropane	ND		ug/kg	2000	--
Styrene	ND		ug/kg	1000	--
Dichlorodifluoromethane	ND		ug/kg	5000	--
Acetone	ND		ug/kg	18000	--
Carbon disulfide	ND		ug/kg	2000	--
2-Butanone	ND		ug/kg	5000	--
4-Methyl-2-pentanone	ND		ug/kg	5000	--
2-Hexanone	ND		ug/kg	5000	--
Bromochloromethane	ND		ug/kg	2000	--
Tetrahydrofuran	ND		ug/kg	2000	--
2,2-Dichloropropane	ND		ug/kg	2500	--
1,2-Dibromoethane	ND		ug/kg	2000	--
1,3-Dichloropropane	ND		ug/kg	2000	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	500	--
Bromobenzene	ND		ug/kg	2500	--
n-Butylbenzene	ND		ug/kg	500	--
sec-Butylbenzene	ND		ug/kg	500	--
tert-Butylbenzene	ND		ug/kg	2000	--
o-Chlorotoluene	ND		ug/kg	2000	--
p-Chlorotoluene	ND		ug/kg	2000	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	2000	--
Hexachlorobutadiene	ND		ug/kg	2000	--
Isopropylbenzene	ND		ug/kg	500	--
p-Isopropyltoluene	ND		ug/kg	500	--
Naphthalene	ND		ug/kg	2000	--
n-Propylbenzene	ND		ug/kg	500	--



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/28/14 14:20
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 08 Batch: WG678879-3					
1,2,3-Trichlorobenzene	ND		ug/kg	2000	--
1,2,4-Trichlorobenzene	ND		ug/kg	2000	--
1,3,5-Trimethylbenzene	ND		ug/kg	2000	--
1,2,4-Trimethylbenzene	ND		ug/kg	2000	--
Ethyl ether	ND		ug/kg	2500	--
Isopropyl Ether	ND		ug/kg	2000	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2000	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2000	--
1,4-Dioxane	ND		ug/kg	20000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	88		70-130

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/29/14 14:07
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 08 Batch: WG678879-6					
Methylene chloride	ND		ug/kg	5000	--
1,1-Dichloroethane	ND		ug/kg	750	--
Chloroform	ND		ug/kg	750	--
Carbon tetrachloride	ND		ug/kg	500	--
1,2-Dichloropropane	ND		ug/kg	1800	--
Dibromochloromethane	ND		ug/kg	500	--
1,1,2-Trichloroethane	ND		ug/kg	750	--
Tetrachloroethene	ND		ug/kg	500	--
Chlorobenzene	ND		ug/kg	500	--
Trichlorofluoromethane	ND		ug/kg	2000	--
1,2-Dichloroethane	ND		ug/kg	500	--
1,1,1-Trichloroethane	ND		ug/kg	500	--
Bromodichloromethane	ND		ug/kg	500	--
trans-1,3-Dichloropropene	ND		ug/kg	500	--
cis-1,3-Dichloropropene	ND		ug/kg	500	--
1,1-Dichloropropene	ND		ug/kg	2000	--
Bromoform	ND		ug/kg	2000	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	500	--
Benzene	ND		ug/kg	500	--
Toluene	ND		ug/kg	750	--
Ethylbenzene	ND		ug/kg	500	--
Chloromethane	ND		ug/kg	2000	--
Bromomethane	ND		ug/kg	1000	--
Vinyl chloride	ND		ug/kg	1000	--
Chloroethane	ND		ug/kg	1000	--
1,1-Dichloroethene	ND		ug/kg	500	--
trans-1,2-Dichloroethene	ND		ug/kg	750	--
Trichloroethene	ND		ug/kg	500	--
1,2-Dichlorobenzene	ND		ug/kg	2000	--
1,3-Dichlorobenzene	ND		ug/kg	2000	--
1,4-Dichlorobenzene	ND		ug/kg	2000	--



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 97,8260C
Analytical Date: 03/29/14 14:07
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 08 Batch: WG678879-6					
Methyl tert butyl ether	ND		ug/kg	1000	--
p/m-Xylene	ND		ug/kg	1000	--
o-Xylene	ND		ug/kg	1000	--
cis-1,2-Dichloroethene	ND		ug/kg	500	--
Dibromomethane	ND		ug/kg	2000	--
1,2,3-Trichloropropane	ND		ug/kg	2000	--
Styrene	ND		ug/kg	1000	--
Dichlorodifluoromethane	ND		ug/kg	5000	--
Acetone	ND		ug/kg	18000	--
Carbon disulfide	ND		ug/kg	2000	--
2-Butanone	ND		ug/kg	5000	--
4-Methyl-2-pentanone	ND		ug/kg	5000	--
2-Hexanone	ND		ug/kg	5000	--
Bromochloromethane	ND		ug/kg	2000	--
Tetrahydrofuran	ND		ug/kg	2000	--
2,2-Dichloropropane	ND		ug/kg	2500	--
1,2-Dibromoethane	ND		ug/kg	2000	--
1,3-Dichloropropane	ND		ug/kg	2000	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	500	--
Bromobenzene	ND		ug/kg	2500	--
n-Butylbenzene	ND		ug/kg	500	--
sec-Butylbenzene	ND		ug/kg	500	--
tert-Butylbenzene	ND		ug/kg	2000	--
o-Chlorotoluene	ND		ug/kg	2000	--
p-Chlorotoluene	ND		ug/kg	2000	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	2000	--
Hexachlorobutadiene	ND		ug/kg	2000	--
Isopropylbenzene	ND		ug/kg	500	--
p-Isopropyltoluene	ND		ug/kg	500	--
Naphthalene	ND		ug/kg	2000	--
n-Propylbenzene	ND		ug/kg	500	--



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 03/29/14 14:07
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 08 Batch: WG678879-6					
1,2,3-Trichlorobenzene	ND		ug/kg	2000	--
1,2,4-Trichlorobenzene	ND		ug/kg	2000	--
1,3,5-Trimethylbenzene	ND		ug/kg	2000	--
1,2,4-Trimethylbenzene	ND		ug/kg	2000	--
Ethyl ether	ND		ug/kg	2500	--
Isopropyl Ether	ND		ug/kg	2000	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2000	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	2000	--
1,4-Dioxane	ND		ug/kg	20000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	96		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 06-07,09 Batch: WG678616-1 WG678616-2										
Methylene chloride	107		100		70-130		7			20
1,1-Dichloroethane	103		101		70-130		2			20
Chloroform	103		102		70-130		1			20
Carbon tetrachloride	101		101		70-130		0			20
1,2-Dichloropropane	96		96		70-130		0			20
Dibromochloromethane	82		91		70-130		10			20
1,1,2-Trichloroethane	88		87		70-130		1			20
Tetrachloroethene	92		98		70-130		6			20
Chlorobenzene	95		100		70-130		5			20
Trichlorofluoromethane	107		104		70-130		3			20
1,2-Dichloroethane	101		97		70-130		4			20
1,1,1-Trichloroethane	104		102		70-130		2			20
Bromodichloromethane	99		99		70-130		0			20
trans-1,3-Dichloropropene	88		93		70-130		6			20
cis-1,3-Dichloropropene	97		96		70-130		1			20
1,1-Dichloropropene	100		102		70-130		2			20
Bromoform	82		86		70-130		5			20
1,1,2,2-Tetrachloroethane	92		94		70-130		2			20
Benzene	100		98		70-130		2			20
Toluene	97		100		70-130		3			20
Ethylbenzene	98		100		70-130		2			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 06-07,09 Batch: WG678616-1 WG678616-2										
Chloromethane	115		112		70-130		3			20
Bromomethane	120		111		70-130		8			20
Vinyl chloride	122		119		70-130		2			20
Chloroethane	121		130		70-130		7			20
1,1-Dichloroethene	111		111		70-130		0			20
trans-1,2-Dichloroethene	111		109		70-130		2			20
Trichloroethene	102		101		70-130		1			20
1,2-Dichlorobenzene	92		103		70-130		11			20
1,3-Dichlorobenzene	99		100		70-130		1			20
1,4-Dichlorobenzene	97		97		70-130		0			20
Methyl tert butyl ether	97		98		70-130		1			20
p/m-Xylene	97		102		70-130		5			20
o-Xylene	96		104		70-130		8			20
cis-1,2-Dichloroethene	104		101		70-130		3			20
Dibromomethane	100		100		70-130		0			20
1,2,3-Trichloropropane	97		99		70-130		2			20
Styrene	109		97		70-130		12			20
Dichlorodifluoromethane	129		129		70-130		0			20
Acetone	114		113		70-130		1			20
Carbon disulfide	121		120		70-130		1			20
2-Butanone	93		95		70-130		2			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 06-07,09 Batch: WG678616-1 WG678616-2										
4-Methyl-2-pentanone	99		96		70-130		3			20
2-Hexanone	88		96		70-130		9			20
Bromochloromethane	109		105		70-130		4			20
Tetrahydrofuran	95		93		70-130		2			20
2,2-Dichloropropane	102		100		70-130		2			20
1,2-Dibromoethane	90		90		70-130		0			20
1,3-Dichloropropane	95		93		70-130		2			20
1,1,1,2-Tetrachloroethane	84		90		70-130		7			20
Bromobenzene	97		100		70-130		3			20
n-Butylbenzene	96		96		70-130		0			20
sec-Butylbenzene	96		98		70-130		2			20
tert-Butylbenzene	96		97		70-130		1			20
o-Chlorotoluene	98		99		70-130		1			20
p-Chlorotoluene	98		100		70-130		2			20
1,2-Dibromo-3-chloropropane	100		90		70-130		11			20
Hexachlorobutadiene	99		101		70-130		2			20
Isopropylbenzene	99		100		70-130		1			20
p-isopropyltoluene	97		99		70-130		2			20
Naphthalene	95		97		70-130		2			20
n-Propylbenzene	97		99		70-130		2			20
1,2,3-Trichlorobenzene	96		99		70-130		3			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	Limits	Qual				
MCP Volatile Organics - Westborough Lab Associated sample(s): 06-07,09 Batch: WG678616-1 WG678616-2										
1,2,4-Trichlorobenzene	99		101		70-130		2			20
1,3,5-Trimethylbenzene	96		97		70-130		1			20
1,2,4-Trimethylbenzene	95		98		70-130		3			20
Ethyl ether	104		108		70-130		4			20
Isopropyl Ether	92		92		70-130		0			20
Ethyl-Tert-Butyl-Ether	92		90		70-130		2			20
Tertiary-Amyl Methyl Ether	94		92		70-130		2			20
1,4-Dioxane	88		90		70-130		2			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		97		70-130
Toluene-d8	96		98		70-130
4-Bromofluorobenzene	97		99		70-130
Dibromofluoromethane	105		104		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

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Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05 Batch: WG678852-1 WG678852-2										
Methylene chloride	99		99		99	70-130	0		0	20
1,1-Dichloroethane	99		99		99	70-130	0		0	20
Chloroform	98		97		97	70-130	1		1	20
Carbon tetrachloride	76		79		79	70-130	4		4	20
1,2-Dichloropropane	98		97		97	70-130	1		1	20
Dibromochloromethane	86		88		88	70-130	2		2	20
1,1,2-Trichloroethane	99		97		97	70-130	2		2	20
Tetrachloroethene	101		98		98	70-130	3		3	20
Chlorobenzene	102		100		100	70-130	2		2	20
1,2-Dichloroethane	98		97		97	70-130	1		1	20
1,1,1-Trichloroethane	91		93		93	70-130	2		2	20
Bromodichloromethane	91		93		93	70-130	2		2	20
trans-1,3-Dichloropropene	76		79		79	70-130	4		4	20
cis-1,3-Dichloropropene	89		91		91	70-130	2		2	20
Bromoform	78		81		81	70-130	4		4	20
1,1,2,2-Tetrachloroethane	98		95		95	70-130	3		3	20
Chloromethane	96		96		96	70-130	0		0	20
Vinyl chloride	107		107		107	70-130	0		0	20
Chloroethane	102		100		100	70-130	2		2	20
1,1-Dichloroethene	98		97		97	70-130	1		1	20
trans-1,2-Dichloroethene	101		98		98	70-130	3		3	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-05 Batch: WG678852-1 WG678852-2								
Trichloroethene	99		98		70-130		1	20
1,2-Dichlorobenzene	102		101		70-130		1	20
1,3-Dichlorobenzene	102		100		70-130		2	20
1,4-Dichlorobenzene	102		101		70-130		1	20
cis-1,2-Dichloroethene	100		98		70-130		2	20
Dichlorodifluoromethane	114		111		70-130		3	20
1,2-Dibromoethane	97		96		70-130		1	20
1,3-Dichloropropane	98		98		70-130		0	20
1,1,1,2-Tetrachloroethane	87		91		70-130		4	20
o-Chlorotoluene	104		102		70-130		2	20
p-Chlorotoluene	102		102		70-130		0	20
Hexachlorobutadiene	100		102		70-130		2	20
1,2,4-Trichlorobenzene	97		97		70-130		0	20

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	101		101		70-130	
Toluene-d8	100		99		70-130	
4-Bromofluorobenzene	100		98		70-130	
Dibromofluoromethane	102		102		70-130	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

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Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG678852-4 WG678852-5										
Methylene chloride	102		104		70-130		2		20	
1,1-Dichloroethane	101		106		70-130		5		20	
Chloroform	99		105		70-130		6		20	
Carbon tetrachloride	74		89		70-130		18		20	
1,2-Dichloropropane	99		105		70-130		6		20	
Dibromochloromethane	84		94		70-130		11		20	
1,1,2-Trichloroethane	96		100		70-130		4		20	
Tetrachloroethene	102		104		70-130		2		20	
Chlorobenzene	102		105		70-130		3		20	
1,2-Dichloroethane	99		104		70-130		5		20	
1,1,1-Trichloroethane	91		102		70-130		11		20	
Bromodichloromethane	91		100		70-130		9		20	
trans-1,3-Dichloropropene	73		82		70-130		12		20	
cis-1,3-Dichloropropene	88		99		70-130		12		20	
Bromoform	76		86		70-130		12		20	
1,1,2,2-Tetrachloroethane	93		97		70-130		4		20	
Chloromethane	105		109		70-130		4		20	
Vinyl chloride	118		124		70-130		5		20	
Chloroethane	106		110		70-130		4		20	
1,1-Dichloroethene	101		105		70-130		4		20	
trans-1,2-Dichloroethene	102		106		70-130		4		20	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	RPD	Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG678852-4 WG678852-5								
Trichloroethene	101		106		70-130		5	20
1,2-Dichlorobenzene	100		104		70-130		4	20
1,3-Dichlorobenzene	101		104		70-130		3	20
1,4-Dichlorobenzene	102		104		70-130		2	20
cis-1,2-Dichloroethene	102		104		70-130		2	20
Dichlorodifluoromethane	118		125		70-130		6	20
1,2-Dibromoethane	96		100		70-130		4	20
1,3-Dichloropropane	97		102		70-130		5	20
1,1,1,2-Tetrachloroethane	87		98		70-130		12	20
o-Chlorotoluene	105		108		70-130		3	20
p-Chlorotoluene	104		106		70-130		2	20
Hexachlorobutadiene	100		98		70-130		2	20
1,2,4-Trichlorobenzene	94		98		70-130		4	20

Surrogate	LCS		LCS D		Acceptance Criteria	
	%Recovery	Qual	%Recovery	Qual	Criteria	
1,2-Dichloroethane-d4	103		104		70-130	
Toluene-d8	100		99		70-130	
4-Bromofluorobenzene	99		98		70-130	
Dibromofluoromethane	102		102		70-130	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits	RPD	Qual
MCP Volatile Organics - Westborough Lab Associated sample(s): 08 Batch: WG678879-1 WG678879-2								
Methylene chloride	109		111		70-130		2	20
1,1-Dichloroethane	114		118		70-130		3	20
Chloroform	108		113		70-130		5	20
Carbon tetrachloride	106		110		70-130		4	20
1,2-Dichloropropane	113		117		70-130		3	20
Dibromochloromethane	95		99		70-130		4	20
1,1,2-Trichloroethane	106		108		70-130		2	20
Tetrachloroethene	110		113		70-130		3	20
Chlorobenzene	108		112		70-130		4	20
Trichlorofluoromethane	90		91		70-130		1	20
1,2-Dichloroethane	99		104		70-130		5	20
1,1,1-Trichloroethane	112		116		70-130		4	20
Bromodichloromethane	101		106		70-130		5	20
trans-1,3-Dichloropropene	104		108		70-130		4	20
cis-1,3-Dichloropropene	108		112		70-130		4	20
1,1-Dichloropropene	119		122		70-130		2	20
Bromoform	90		95		70-130		5	20
1,1,2,2-Tetrachloroethane	103		106		70-130		3	20
Benzene	117		121		70-130		3	20
Toluene	113		114		70-130		1	20
Ethylbenzene	113		116		70-130		3	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 08 Batch: WG678879-1 WG678879-2										
Chloromethane	120		120		70-130		0		0	20
Bromomethane	87		88		70-130		1		1	20
Vinyl chloride	116		116		70-130		0		0	20
Chloroethane	104		104		70-130		0		0	20
1,1-Dichloroethene	109		119		70-130		9		9	20
trans-1,2-Dichloroethene	117		121		70-130		3		3	20
Trichloroethene	112		118		70-130		5		5	20
1,2-Dichlorobenzene	104		106		70-130		2		2	20
1,3-Dichlorobenzene	106		108		70-130		2		2	20
1,4-Dichlorobenzene	105		108		70-130		3		3	20
Methyl tert butyl ether	107		111		70-130		4		4	20
p/m-Xylene	111		114		70-130		3		3	20
o-Xylene	110		113		70-130		3		3	20
cis-1,2-Dichloroethene	113		116		70-130		3		3	20
Dibromomethane	99		103		70-130		4		4	20
1,2,3-Trichloropropane	102		107		70-130		5		5	20
Styrene	109		110		70-130		1		1	20
Dichlorodifluoromethane	98		100		70-130		2		2	20
Acetone	93		99		70-130		6		6	20
Carbon disulfide	100		108		70-130		8		8	20
2-Butanone	96		107		70-130		11		11	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 08 Batch: WG678879-1 WG678879-2										
4-Methyl-2-pentanone	110		114		70-130		4		4	20
2-Hexanone	102		100		70-130		2		2	20
Bromochloromethane	105		109		70-130		4		4	20
Tetrahydrofuran	108		91		70-130		17		17	20
2,2-Dichloropropane	113		117		70-130		3		3	20
1,2-Dibromoethane	103		106		70-130		3		3	20
1,3-Dichloropropane	107		110		70-130		3		3	20
1,1,1,2-Tetrachloroethane	102		104		70-130		2		2	20
Bromobenzene	104		107		70-130		3		3	20
n-Butylbenzene	112		116		70-130		4		4	20
sec-Butylbenzene	112		117		70-130		4		4	20
tert-Butylbenzene	112		116		70-130		4		4	20
o-Chlorotoluene	112		116		70-130		4		4	20
p-Chlorotoluene	112		114		70-130		2		2	20
1,2-Dibromo-3-chloropropane	96		99		70-130		3		3	20
Hexachlorobutadiene	104		108		70-130		4		4	20
Isopropylbenzene	112		115		70-130		3		3	20
p-Isopropyltoluene	112		115		70-130		3		3	20
Naphthalene	101		104		70-130		3		3	20
n-Propylbenzene	112		116		70-130		4		4	20
1,2,3-Trichlorobenzene	100		102		70-130		2		2	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	Qual	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 08 Batch: WG678879-1 WG678879-2										
1,2,4-Trichlorobenzene	102		105		70-130		3			20
1,3,5-Trimethylbenzene	111		114		70-130		3			20
1,2,4-Trimethylbenzene	110		114		70-130		4			20
Ethyl ether	92		92		70-130		0			20
Isopropyl Ether	112		116		70-130		4			20
Ethyl-Tert-Butyl-Ether	110		112		70-130		2			20
Tertiary-Amyl Methyl Ether	108		111		70-130		3			20
1,4-Dioxane	129		129		70-130		0			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	90		90		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	103		102		70-130
Dibromofluoromethane	92		91		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 08 Batch: WG678879-4 WG678879-5										
Methylene chloride	98		97		70-130		1			20
1,1-Dichloroethane	95		92		70-130		3			20
Chloroform	94		91		70-130		3			20
Carbon tetrachloride	90		86		70-130		5			20
1,2-Dichloropropane	94		92		70-130		2			20
Dibromochloromethane	92		91		70-130		1			20
1,1,2-Trichloroethane	93		93		70-130		0			20
Tetrachloroethene	90		87		70-130		3			20
Chlorobenzene	91		88		70-130		3			20
Trichlorofluoromethane	98		93		70-130		5			20
1,2-Dichloroethane	92		92		70-130		0			20
1,1,1-Trichloroethane	92		89		70-130		3			20
Bromodichloromethane	92		92		70-130		0			20
trans-1,3-Dichloropropene	92		92		70-130		0			20
cis-1,3-Dichloropropene	95		94		70-130		1			20
1,1-Dichloropropene	91		89		70-130		2			20
Bromoform	91		91		70-130		0			20
1,1,2,2-Tetrachloroethane	92		92		70-130		0			20
Benzene	92		90		70-130		2			20
Toluene	88		85		70-130		3			20
Ethylbenzene	88		85		70-130		3			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 08 Batch: WG678879-4 WG678879-5										
Chloromethane	97		92		70-130		5		20	
Bromomethane	114		109		70-130		4		20	
Vinyl chloride	96		92		70-130		4		20	
Chloroethane	96		92		70-130		4		20	
1,1-Dichloroethene	96		92		70-130		4		20	
trans-1,2-Dichloroethene	96		92		70-130		4		20	
Trichloroethene	91		89		70-130		2		20	
1,2-Dichlorobenzene	91		90		70-130		1		20	
1,3-Dichlorobenzene	90		89		70-130		1		20	
1,4-Dichlorobenzene	91		89		70-130		2		20	
Methyl tert butyl ether	99		99		70-130		0		20	
p/m-Xylene	90		86		70-130		5		20	
o-Xylene	89		86		70-130		3		20	
cis-1,2-Dichloroethene	96		92		70-130		4		20	
Dibromomethane	95		95		70-130		0		20	
1,2,3-Trichloropropane	92		91		70-130		1		20	
Styrene	87		85		70-130		2		20	
Dichlorodifluoromethane	97		92		70-130		5		20	
Acetone	115		109		70-130		5		20	
Carbon disulfide	95		90		70-130		5		20	
2-Butanone	99		96		70-130		3		20	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 08 Batch: WG678879-4 WG678879-5										
4-Methyl-2-pentanone	90		92		70-130		2		20	
2-Hexanone	88		89		70-130		1		20	
Bromochloromethane	97		95		70-130		2		20	
Tetrahydrofuran	120		118		70-130		2		20	
2,2-Dichloropropane	95		90		70-130		5		20	
1,2-Dibromoethane	95		94		70-130		1		20	
1,3-Dichloropropane	93		93		70-130		0		20	
1,1,1,2-Tetrachloroethane	90		87		70-130		3		20	
Bromobenzene	90		90		70-130		0		20	
n-Butylbenzene	88		85		70-130		3		20	
sec-Butylbenzene	87		84		70-130		4		20	
tert-Butylbenzene	88		86		70-130		2		20	
o-Chlorotoluene	94		91		70-130		3		20	
p-Chlorotoluene	91		88		70-130		3		20	
1,2-Dibromo-3-chloropropane	97		95		70-130		2		20	
Hexachlorobutadiene	87		84		70-130		4		20	
Isopropylbenzene	87		83		70-130		5		20	
p-Isopropyltoluene	88		85		70-130		3		20	
Naphthalene	92		94		70-130		2		20	
n-Propylbenzene	87		84		70-130		4		20	
1,2,3-Trichlorobenzene	93		94		70-130		1		20	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	Qual	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 08 Batch: WG678879-4 WG678879-5										
1,2,4-Trichlorobenzene	96		96		70-130		0			20
1,3,5-Trimethylbenzene	89		86		70-130		3			20
1,2,4-Trimethylbenzene	90		87		70-130		3			20
Ethyl ether	101		98		70-130		3			20
Isopropyl Ether	95		93		70-130		2			20
Ethyl-Tert-Butyl-Ether	94		93		70-130		1			20
Tertiary-Amyl Methyl Ether	94		94		70-130		0			20
1,4-Dioxane	102		104		70-130		2			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	94		95		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	98		100		70-130



PCBS

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

SAMPLE RESULTS

Lab ID: L1406115-08 D
 Client ID: AX-DNAPL-MW15D-032414
 Sample Location: NEW BEDFORD, MA
 Matrix: Oil
 Analytical Method: 97,8082
 Analytical Date: 03/30/14 22:37
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 03/24/14 12:45
 Date Received: 03/24/14
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 03/27/14 08:09
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/28/14
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/28/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		mg/kg	54000	--	20000	A
Aroclor 1221	ND		mg/kg	54000	--	20000	A
Aroclor 1232	ND		mg/kg	54000	--	20000	A
Aroclor 1242	479000		mg/kg	54000	--	20000	A
Aroclor 1248	ND		mg/kg	54000	--	20000	A
Aroclor 1254	187000		mg/kg	54000	--	20000	A
Aroclor 1260	ND		mg/kg	54000	--	20000	A
Aroclor 1262	ND		mg/kg	54000	--	20000	A
Aroclor 1268	ND		mg/kg	54000	--	20000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8082
Analytical Date: 03/31/14 13:48
Analyst: TQ

Extraction Method: EPA 3580A
Extraction Date: 03/27/14 08:09
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/28/14
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/28/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 08 Batch: WG678281-1						
Aroclor 1016	ND		mg/kg	3.66	--	A
Aroclor 1221	ND		mg/kg	3.66	--	A
Aroclor 1232	ND		mg/kg	3.66	--	A
Aroclor 1242	ND		mg/kg	3.66	--	A
Aroclor 1248	ND		mg/kg	3.66	--	A
Aroclor 1254	ND		mg/kg	3.66	--	A
Aroclor 1260	5.20		mg/kg	3.66	--	B
Aroclor 1262	ND		mg/kg	3.66	--	A
Aroclor 1268	ND		mg/kg	3.66	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	111		30-150	B
Decachlorobiphenyl	113		30-150	A

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8082
 Analytical Date: 03/28/14 08:43
 Analyst: JW

Extraction Method: EPA 3510C
 Extraction Date: 03/27/14 17:01
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/27/14
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/27/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 02-07,09 Batch: WG678478-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.250	--	A
Aroclor 1262	ND		ug/l	0.250	--	A
Aroclor 1268	ND		ug/l	0.250	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	74		30-150	B
Decachlorobiphenyl	64		30-150	A

Matrix Spike Analysis
Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 02-07,09 QC Batch ID: WG678478-4 WG678478-5 QC Sample: L1406002-08 Client ID: MS Sample												
Aroclor 1016	ND	3.12	3.95	126	3.60	115		40-140	9		20	A
Aroclor 1260	ND	3.12	2.08	67	1.94	62		40-140	7		20	A

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		49		30-150	A
Decachlorobiphenyl	58		55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	57		54		30-150	B
Decachlorobiphenyl	67		63		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 08 Batch: WG678281-2									
Atrodor 1016	92	-	-	-	40-140	-	-	30	A
Atrodor 1260	125	-	-	-	40-140	-	-	30	A

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84				30-150	A
Decachlorobiphenyl	116				30-150	A
2,4,5,6-Tetrachloro-m-xylene	79				30-150	B
Decachlorobiphenyl	107				30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 02-07,09 Batch: WG678478-2 WG678478-3									
Atrodor 1016	78		75		40-140	3		20	A
Atrodor 1260	84		86		40-140	3		20	A

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		62		30-150	A
Decachlorobiphenyl	76		78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		63		30-150	B
Decachlorobiphenyl	84		85		30-150	B



Lab Duplicate Analysis

Batch Quality Control

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 08 QC Batch ID: WG678281-4 QC Sample: L1406115-08 Client ID: AX-DNAPL-MW15D-032414						
Atroclor 1016	ND	ND	mg/kg	NC		30 A
Atroclor 1221	ND	ND	mg/kg	NC		30 A
Atroclor 1232	ND	ND	mg/kg	NC		30 A
Atroclor 1242	479000	406000	mg/kg	16		30 A
Atroclor 1248	ND	ND	mg/kg	NC		30 A
Atroclor 1254	187000	157000	mg/kg	17		30 A
Atroclor 1260	ND	ND	mg/kg	NC		30 A
Atroclor 1262	ND	ND	mg/kg	NC		30 A
Atroclor 1268	ND	ND	mg/kg	NC		30 A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	0	Q	30-150	A
Decachlorobiphenyl	0	Q	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	0	Q	30-150	B
Decachlorobiphenyl	0	Q	0	Q	30-150	B



INORGANICS & MISCELLANEOUS

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent
 B Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1406115-01A	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-02A	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-02B	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-02C	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-02D	Amber 1000ml unpreserved	A	7	3.9	Y	Absent	MCP-8082-10(365)
L1406115-02E	Amber 1000ml unpreserved	A	7	3.9	Y	Absent	MCP-8082-10(365)
L1406115-02F	Plastic 1000ml unpreserved	A	7	3.9	Y	Absent	TSS-2540(7)
L1406115-03A	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-03B	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-03C	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-03D	Amber 1000ml unpreserved	A	7	3.9	Y	Absent	MCP-8082-10(365)
L1406115-03E	Amber 1000ml unpreserved	A	7	3.9	Y	Absent	MCP-8082-10(365)
L1406115-03F	Plastic 1000ml unpreserved	B	7	5.6	Y	Absent	TSS-2540(7)
L1406115-04A	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-04B	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-04C	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-04D	Amber 1000ml unpreserved	B	7	5.6	Y	Absent	MCP-8082-10(365)
L1406115-04E	Amber 1000ml unpreserved	B	7	5.6	Y	Absent	MCP-8082-10(365)
L1406115-04F	Plastic 1000ml unpreserved	B	7	5.6	Y	Absent	TSS-2540(7)
L1406115-05A	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-05B	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-05C	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-05D	Amber 1000ml unpreserved	B	7	5.6	Y	Absent	MCP-8082-10(365)
L1406115-05E	Amber 1000ml unpreserved	B	7	5.6	Y	Absent	MCP-8082-10(365)
L1406115-05F	Plastic 1000ml unpreserved	B	7	5.6	Y	Absent	TSS-2540(7)
L1406115-06A	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1406115-06B	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-06C	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-06D	Amber 1000ml unpreserved	B	7	5.6	Y	Absent	MCP-8082-10(365)
L1406115-06E	Amber 1000ml unpreserved	B	7	5.6	Y	Absent	MCP-8082-10(365)
L1406115-06F	Plastic 1000ml unpreserved	B	7	5.6	Y	Absent	TSS-2540(7)
L1406115-07A	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-07B	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-07C	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-07D	Amber 1000ml unpreserved	A	7	3.9	Y	Absent	MCP-8082-10(365)
L1406115-07E	Amber 1000ml unpreserved	A	7	3.9	Y	Absent	MCP-8082-10(365)
L1406115-07F	Plastic 1000ml unpreserved	B	7	5.6	Y	Absent	TSS-2540(7)
L1406115-08A	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-08B	Vial unpreserved	A	7	3.9	Y	Absent	MCP-8082-10(365)
L1406115-09A	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-09B	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-09C	Vial HCl preserved	A	N/A	3.9	Y	Absent	MCP-8260-10(14)
L1406115-09D	Amber 1000ml unpreserved	B	7	5.6	Y	Absent	MCP-8082-10(365)
L1406115-09E	Amber 1000ml unpreserved	B	7	5.6	Y	Absent	MCP-8082-10(365)
L1406115-09F	Plastic 1000ml unpreserved	B	7	5.6	Y	Absent	TSS-2540(7)

*Values in parentheses indicate holding time in days

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report



Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: AEROVOX
Project Number: 39744051.20003

Lab Number: L1406115
Report Date: 03/31/14

REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 11, 2013

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
 8 Walkup Drive
 Westboro, MA 01581
 Tel: 508-895-9220

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

Client Information

Client: **URS**
 Address: **1155 Elm St, Suite 401**
Manchester, NH 03101
 Phone: **(603) 606-4800**
 Email: **judith.leclair@urs.com**

Project Information

Project Name: **Aerovox**
 Project Location: **New Bedford, MA**
 Project #: **39744051.20003**
 Project Manager: **J. LeClair/M. Wade**
 ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)
 Date Due: **3/31/14**

Additional Project Information:

CVOC only
DNAPL samples in unpreserved VOAS

Date Rec'd in Lab: **3/24/14**
ALPHA Job #: L1406115

Report Information - Data Deliverables

ADEX EMAIL
 Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS	CVOC: <input checked="" type="checkbox"/> 6260 <input type="checkbox"/> 624 <input type="checkbox"/> 5242	METALS: <input type="checkbox"/> ABN <input type="checkbox"/> PAH	METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	EPH: <input type="checkbox"/> RCRAS <input type="checkbox"/> RCRAS <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	PCB <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint	TOTAL # BOTTLES
06115 01	<input checked="" type="checkbox"/>							1
02								6
03								6
04								6
05								6
06								6
07								6
08								6
09								6

Sample ID	Collection Date	Time	Sample Matrix	Sampler Initials	Container Type	Preservative	Date/Time	Received By
TB-05	3/24/14		TB		V	B		
AX-GW-MW3-032414	0905		GW	JKH				
AX-6W-MW15B-032414	1050		GW	JKH				
AX-GW-MW7A-032414	1000		GW	CMK				
AX-6W-MW7-032414	1125		GW	CMK				
AX-GW-MW15D-032414	1150		GW	JKH				
AX-GW-DUP4-032414	1155		GW	JKH				
AX-DNAPL-MW15D-032414	1245		O	JKH				
AX-6W-MW7B-032414	1400		GW	CMK				

ALPHA Lab ID (Lab Use Only)	Collection Date	Time	Sample Matrix	Sampler Initials	Container Type	Preservative	Date/Time	Received By
06115 01	3/24/14		TB		V	B		
02			GW	JKH				
03			GW	JKH				
04			GW	CMK				
05			GW	CMK				
06			GW	JKH				
07			GW	JKH				
08			O	JKH				
09			GW	CMK				

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

Preservative
 A= None
 B= HCl
 C= HNO3
 D= H2SO4
 E= NaOH
 F= MeOH
 G= NaHSO4
 H= Na2S2O3
 I= Ascorbic Acid
 J= NH4Cl
 K= Zn Acetate
 O= Other

Relinquished By: *Christine K*
 Date/Time: **3/24 15:50**
 Received By: *Egner*
 Date/Time: **3/24/14**

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

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1406115

Instrument ID: Quimby.i Calibration Date: 28-MAR-2014 Time: 05:13

Lab File ID: 0328A02 Init. Calib. Date(s): 24-MAR-2 24-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 06:07 13:28

Compound	RRF	RRF	MIN RRF	%D	MAX %D
dichlorodifluoromethane	.37755	.43179	.1	14	20
chloromethane	.55134	.52735	.1	-4	20
vinyl chloride	.41894	.44956	.1	7	20
bromomethane	.2956	.2079	.1	-30	20
chloroethane	.32297	.3304	.1	2	20
trichlorofluoromethane	.69441	.70759	.1	2	20
ethyl ether	.19311	.19201	.05	-1	20
acrolein	.07673	.07393	.05	-4	20
freon-113	.44236	.4446	.1	1	20
acetone	100	98.400	.1	-2	20
1,1,-dichloroethene	.42433	.41668	.1	-2	20
tert-butyl alcohol	.01716	.01487	.05	-13	20
iodomethane	.35707	.28805	.05	-19	20
methyl acetate	.21402	.20041	.01	-6	20
methylene chloride	.4706	.4679	.1	-1	20
carbon disulfide	1.0746	1.0891	.1	1	20
acrylonitrile	.1387	.13372	.05	-4	20
methyl tert butyl ether	.83635	.80022	.1	-4	20
Halothane	.34383	.33708	.05	-2	20
trans-1,2-dichloroethene	.46727	.47092	.1	1	20
Diisopropyl Ether	1.7593	1.7500	.05	-1	20
vinyl acetate	.67567	.59118	.05	-13	20
1,1-dichloroethane	.97574	.96619	.2	-1	20
Ethyl-Tert-Butyl-Ether	1.3260	1.2863	.05	-3	20
2-butanone	.13501	.12873	.1	-5	20
2,2-dichloropropane	100	72.416	.05	-28	20
ethyl acetate	100	94.065	.05	-6	20
cis-1,2-dichloroethene	.50063	.50165	.1	0	20
chloroform	.81007	.79618	.2	-2	20
bromochloromethane	.20718	.20661	.05	0	20
tetrahydrofuran	.08878	.08556	.05	-4	20
1,1,1-trichloroethane	.67564	.61714	.1	-9	20
cyclohexane	1.1643	1.1905	.01	2	30
1,1-dichloropropene	.69545	.69592	.05	0	20
carbontetrachloride	100	76.494	.1	-24	20
Tertiary-Amyl Methyl Ether	.87246	.82066	.05	-6	20
1,2-dichloroethane	.63126	.62088	.1	-2	20
benzene	1.8091	1.8794	.5	4	20

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1406115

Instrument ID: Quimby.i Calibration Date: 28-MAR-2014 Time: 05:13

Lab File ID: 0328A02 Init. Calib. Date(s): 24-MAR-2 24-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 06:07 13:28

Compound	RRF	RRF	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
trichloroethene	.49594	.49243	.2	-1	20
methyl cyclohexane	.84918	.86609	.01	2	30
1,2-dichloropropane	.55529	.54177	.1	-2	20
bromodichloromethane	.57605	.52467	.2	-9	20
1,4-dioxane	.00242	.0022	.05	-9	20
dibromomethane	.2212	.22043	.05	0	20
2-chloroethylvinyl ether	.18542	.16101	.05	-13	20
4-methyl-2-pentanone	.13235	.12322	.1	-7	20
cis-1,3-dichloropropene	.61107	.54545	.2	-11	20
toluene	1.5027	1.5346	.4	2	20
ethyl-methacrylate	100	92.337	.01	-8	0
trans-1,3-dichloropropene	100	75.889	.1	-24	20
2-hexanone	.24277	.2321	.1	-4	20
1,1,2-trichloroethane	.33156	.32813	.1	-1	20
1,3-dichloropropane	.72477	.7074	.05	-2	20
tetrachloroethene	.65863	.66659	.2	1	20
chlorodibromomethane	.43466	.37411	.1	-14	20
1,2-dibromoethane	.3744	.36451	.1	-3	20
chlorobenzene	1.6152	1.6427	.5	2	20
1,1,1,2-tetrachloroethane	.4734	.41256	.05	-13	20
ethyl benzene	2.8947	3.0571	.1	6	20
p/m xylene	1.1089	1.1925	.1	8	20
o xylene	1.0425	1.1019	.3	6	20
styrene	1.6584	1.7856	.31	8	20
isopropylbenzene	2.9108	3.0919	.1	6	20
bromoform	.46063	.35781	.1	-22	20
1,4-dichlorobutane	1.7893	1.7316	.01	-3	30
1,1,2,2,-tetrachloroethane	.86592	.84581	.3	-2	20
1,2,3-trichloropropane	.67315	.65121	.05	-3	20
trans-1,4-dichloro-2-butene	.30126	.2718	.05	-10	20
n-propylbenzene	6.3297	6.9040	.05	9	20
bromobenzene	1.2513	1.2495	.05	0	20
4-ethyltoluene	2.4079	2.5973	.05	8	20
1,3,5-trimethylbenzene	4.5406	4.8690	.05	7	20
2-chlorotoluene	4.4212	4.5931	.05	4	20
4-chlorotoluene	4.0192	4.0977	.05	2	20
tert-butylbenzene	3.9705	4.2326	.05	7	20
1,2,4-trimethylbenzene	4.534	4.8181	.05	6	20

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1406115

Instrument ID: Jack.i Calibration Date: 28-MAR-2014 Time: 06:34

Lab File ID: 0328B02 Init. Calib. Date(s): 24-MAR-2 24-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 06:20 13:58

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.49527	.6372	.1	29	20	F
chloromethane	100	115	.1	15	20	
vinyl chloride	.91218	1.1139	.1	22	20	F
bromomethane	.29117	.3506	.1	20	20	F
chloroethane	.44462	.53769	.1	21	20	F
trichlorofluoromethane	.96972	1.0383	.1	7	20	
ethyl ether	.2816	.29264	.05	4	20	
1,1,-dichloroethene	.57317	.63625	.1	11	20	
carbon disulfide	1.3889	1.6767	.1	21	20	F
freon-113	.63314	.71564	.1	13	20	
iodomethane	.37278	.27244	.05	-27	20	F
acrolein	.14016	.15594	.05	11	20	
methylene chloride	.59834	.64264	.1	7	20	
acetone	100	114	.1	14	20	
trans-1,2-dichloroethene	.65128	.72077	.1	11	20	
methyl acetate	.43017	.44024	.1	2	20	
methyl tert butyl ether	1.3014	1.2637	.1	-3	20	
tert butyl alcohol	.04678	.04761	.05	2	20	F
Diisopropyl Ether	2.8471	2.6328	.01	-8	20	
1,1-dichloroethane	1.5632	1.6086	.2	3	20	
acrylonitrile	.21841	.22777	.05	4	20	
Halothane	.49604	.51674	.05	4	20	
Ethyl-Tert-Butyl-Ether	2.2696	2.0799	.05	-8	20	
vinyl acetate	1.5145	1.3863	.05	-8	20	
cis-1,2-dichloroethene	.71409	.74406	.1	4	20	
2,2-dichloropropane	.97271	.98736	.05	2	20	
cyclohexane	1.8338	1.9389	.01	6	30	
bromochloromethane	.3082	.3369	.05	9	20	
chloroform	1.1828	1.2148	.2	3	20	
carbontetrachloride	.89326	.90658	.1	1	20	
tetrahydrofuran	.20231	.19236	.05	-5	20	
ethyl acetate	.5616	.5182	.05	-8	20	
1,1,1-trichloroethane	1.0162	1.0602	.1	4	20	
1,1-dichloropropene	.92538	.92351	.05	0	20	
2-butanone	.24149	.22376	.1	-7	20	
benzene	2.6154	2.6190	.5	0	20	
Tertiary-Amyl Methyl Ether	1.3454	1.2618	.05	-6	20	
1,2-dichloroethane	.93584	.94665	.1	1	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1406115

Instrument ID: Jack.i Calibration Date: 28-MAR-2014 Time: 06:34

Lab File ID: 0328B02 Init. Calib. Date(s): 24-MAR-2 24-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 06:20 13:58

Compound	RRF	RRF	MIN RRF	%D	MAX %D
methy1 cyclohexane	.9805	.996	.01	2	30
trichloroethene	.63791	.65327	.2	2	20
dibromomethane	.31962	.31877	.05	0	20
1,2-dichloropropane	.83876	.80117	.1	-4	20
bromodichloromethane	.82605	.8179	.2	-1	20
1,4-dioxane	.00423	.00372	.05	-12	20
2-chloroethylvinyl ether	.3725	.35791	.05	-4	20
cis-1,3-dichloropropene	.98705	.95892	.2	-3	20
toluene	2.0122	1.9527	.4	-3	20
tetrachloroethene	.87149	.7977	.2	-8	20
4-methyl-2-pentanone	.20046	.19801	.1	-1	20
trans-1,3-dichloropropene	.97089	.85946	.1	-11	20
1,1,2-trichloroethane	.46399	.40921	.1	-12	20
ethyl-methacrylate	.72397	.68859	.01	-5	30
chlorodibromomethane	.65484	.53953	.1	-18	20
1,3-dichloropropane	.97005	.9178	.05	-5	20
1,2-dibromoethane	.56653	.51268	.1	-10	20
2-hexanone	.42284	.37288	.1	-12	20
chlorobenzene	2.1785	2.0688	.5	-5	20
ethyl benzene	3.8004	3.7041	.1	-3	20
1,1,1,2-tetrachloroethane	.77297	.65159	.05	-16	20
p/m xylene	1.4987	1.4587	.1	-3	20
o xylene	1.3908	1.3325	.3	-4	20
bromoform	.65445	.54015	.1	-17	20
styrene	2.3580	2.5788	.3	9	20
isopropylbenzene	6.7198	6.6743	.1	-1	20
bromobenzene	1.6180	1.5684	.05	-3	20
n-propylbenzene	7.1776	6.9456	.05	-3	20
1,4-dichlorobutane	2.5333	2.3712	.01	-6	20
1,1,2,2,-tetrachloroethane	1.0971	1.0087	.3	-8	20
4-ethyltoluene	6.6232	6.3865	.05	-4	20
2-chlorotoluene	5.0164	4.9328	.05	-2	20
1,2,3-trichloropropane	.87607	.84585	.05	-3	20
1,3,5-trimethybenzene	5.2320	5.0204	.05	-4	20
trans-1,4-dichloro-2-butene	.19049	.17117	.05	-10	20
4-chorotoluene	4.4812	4.3717	.05	-2	20
tert-butylbenzene	4.3508	4.1621	.05	-4	20
1,2,4-trimethylbenzene	5.2492	4.9653	.05	-5	20

F

FORM VII MCP-8260-10



ANALYTICAL REPORT

Lab Number:	L1422969
Client:	URS Corporation 1155 Elm Street Manchester, NH 03101
ATTN:	Judith LeClair
Phone:	(603) 893-0616
Project Name:	AEROVOX IRA
Project Number:	39744051.40003
Report Date:	10/29/14

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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



Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1422969-01	MW15D/B DNAPL	OIL	NEW BEDFORD, MA	09/30/14 09:30	09/30/14



Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

HOLD POLICY

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

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

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Case Narrative (continued)

Report Submission

This final report replaces the partial report issued October 7, 2014, and includes the results of all requested analyses.

The analyses of Viscosity and Interfacial Tension were subcontracted; however, the laboratory was unable to perform these analyses due to the elevated PCB concentrations in the sample.

MCP Related Narratives

Volatile Organics

In reference to question G:

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

In reference to question H:

The continuing calibration standard, associated with L1422969-01, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question I:

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

PCBs

In reference to question G:

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

In reference to question H:

L1422969-01: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene and decachlorobiphenyl (all at 0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 10/29/14

ORGANICS

VOLATILES

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

SAMPLE RESULTS

Lab ID: L1422969-01 D2
 Client ID: MW15D/B DNAPL
 Sample Location: NEW BEDFORD, MA
 Matrix: Oil
 Analytical Method: 97,8260C
 Analytical Date: 10/07/14 09:02
 Analyst: MV
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 09/30/14 09:30
 Date Received: 09/30/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	20000000		ug/kg	500000	--	1000

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	96		70-130

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

SAMPLE RESULTS

Lab ID: L1422969-01 D
 Client ID: MW15D/B DNAPL
 Sample Location: NEW BEDFORD, MA
 Matrix: Oil
 Analytical Method: 97,8260C
 Analytical Date: 10/06/14 19:49
 Analyst: MV
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 09/30/14 09:30
 Date Received: 09/30/14
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/kg	1000000	--	200
1,1-Dichloroethane	ND		ug/kg	150000	--	200
Chloroform	ND		ug/kg	150000	--	200
Carbon tetrachloride	ND		ug/kg	100000	--	200
1,2-Dichloropropane	ND		ug/kg	350000	--	200
Dibromochloromethane	ND		ug/kg	100000	--	200
1,1,2-Trichloroethane	ND		ug/kg	150000	--	200
Tetrachloroethene	8100000		ug/kg	100000	--	200
Chlorobenzene	ND		ug/kg	100000	--	200
1,2-Dichloroethane	ND		ug/kg	100000	--	200
1,1,1-Trichloroethane	ND		ug/kg	100000	--	200
Bromodichloromethane	ND		ug/kg	100000	--	200
trans-1,3-Dichloropropene	ND		ug/kg	100000	--	200
cis-1,3-Dichloropropene	ND		ug/kg	100000	--	200
1,3-Dichloropropene, Total	ND		ug/kg	100000	--	200
Bromoform	ND		ug/kg	400000	--	200
1,1,2,2-Tetrachloroethane	ND		ug/kg	100000	--	200
Chloromethane	ND		ug/kg	400000	--	200
Vinyl chloride	ND		ug/kg	200000	--	200
Chloroethane	ND		ug/kg	200000	--	200
1,1-Dichloroethene	ND		ug/kg	100000	--	200
trans-1,2-Dichloroethene	ND		ug/kg	150000	--	200
Trichloroethene	32000000	E	ug/kg	100000	--	200
1,2-Dichlorobenzene	ND		ug/kg	400000	--	200
1,3-Dichlorobenzene	ND		ug/kg	400000	--	200
1,4-Dichlorobenzene	2000000		ug/kg	400000	--	200
cis-1,2-Dichloroethene	1300000		ug/kg	100000	--	200
1,2-Dichloroethene, Total	1300000		ug/kg	100000	--	200
Dichlorodifluoromethane	ND		ug/kg	1000000	--	200
1,2-Dibromoethane	ND		ug/kg	400000	--	200



Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

SAMPLE RESULTS

Lab ID: L1422969-01 D
Client ID: MW15D/B DNAPL
Sample Location: NEW BEDFORD, MA

Date Collected: 09/30/14 09:30
Date Received: 09/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichloropropane	ND		ug/kg	400000	--	200
1,1,1,2-Tetrachloroethane	ND		ug/kg	100000	--	200
o-Chlorotoluene	ND		ug/kg	400000	--	200
p-Chlorotoluene	ND		ug/kg	400000	--	200
Hexachlorobutadiene	ND		ug/kg	400000	--	200
1,2,4-Trichlorobenzene	13000000		ug/kg	400000	--	200

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	94		70-130

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/06/14 10:49
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG728757-3					
Methylene chloride	ND		ug/kg	5000	--
1,1-Dichloroethane	ND		ug/kg	750	--
Chloroform	ND		ug/kg	750	--
Carbon tetrachloride	ND		ug/kg	500	--
1,2-Dichloropropane	ND		ug/kg	1800	--
Dibromochloromethane	ND		ug/kg	500	--
1,1,2-Trichloroethane	ND		ug/kg	750	--
Tetrachloroethene	ND		ug/kg	500	--
Chlorobenzene	ND		ug/kg	500	--
1,2-Dichloroethane	ND		ug/kg	500	--
1,1,1-Trichloroethane	ND		ug/kg	500	--
Bromodichloromethane	ND		ug/kg	500	--
trans-1,3-Dichloropropene	ND		ug/kg	500	--
cis-1,3-Dichloropropene	ND		ug/kg	500	--
1,3-Dichloropropene, Total	ND		ug/kg	500	--
Bromoform	ND		ug/kg	2000	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	500	--
Chloromethane	ND		ug/kg	2000	--
Vinyl chloride	ND		ug/kg	1000	--
Chloroethane	ND		ug/kg	1000	--
1,1-Dichloroethene	ND		ug/kg	500	--
trans-1,2-Dichloroethene	ND		ug/kg	750	--
Trichloroethene	ND		ug/kg	500	--
1,2-Dichlorobenzene	ND		ug/kg	2000	--
1,3-Dichlorobenzene	ND		ug/kg	2000	--
1,4-Dichlorobenzene	ND		ug/kg	2000	--
cis-1,2-Dichloroethene	ND		ug/kg	500	--
1,2-Dichloroethene, Total	ND		ug/kg	500	--
Dichlorodifluoromethane	ND		ug/kg	5000	--

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/06/14 10:49
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG728757-3					
1,2-Dibromoethane	ND		ug/kg	2000	--
1,3-Dichloropropane	ND		ug/kg	2000	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	500	--
o-Chlorotoluene	ND		ug/kg	2000	--
p-Chlorotoluene	ND		ug/kg	2000	--
Hexachlorobutadiene	ND		ug/kg	2000	--
1,2,4-Trichlorobenzene	ND		ug/kg	2000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	90		70-130

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/07/14 08:35
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG728757-6					
Methylene chloride	ND		ug/kg	5000	--
1,1-Dichloroethane	ND		ug/kg	750	--
Chloroform	ND		ug/kg	750	--
Carbon tetrachloride	ND		ug/kg	500	--
1,2-Dichloropropane	ND		ug/kg	1800	--
Dibromochloromethane	ND		ug/kg	500	--
1,1,2-Trichloroethane	ND		ug/kg	750	--
Tetrachloroethene	ND		ug/kg	500	--
Chlorobenzene	ND		ug/kg	500	--
1,2-Dichloroethane	ND		ug/kg	500	--
1,1,1-Trichloroethane	ND		ug/kg	500	--
Bromodichloromethane	ND		ug/kg	500	--
trans-1,3-Dichloropropene	ND		ug/kg	500	--
cis-1,3-Dichloropropene	ND		ug/kg	500	--
1,3-Dichloropropene, Total	ND		ug/kg	500	--
Bromoform	ND		ug/kg	2000	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	500	--
Chloromethane	ND		ug/kg	2000	--
Vinyl chloride	ND		ug/kg	1000	--
Chloroethane	ND		ug/kg	1000	--
1,1-Dichloroethene	ND		ug/kg	500	--
trans-1,2-Dichloroethene	ND		ug/kg	750	--
Trichloroethene	ND		ug/kg	500	--
1,2-Dichlorobenzene	ND		ug/kg	2000	--
1,3-Dichlorobenzene	ND		ug/kg	2000	--
1,4-Dichlorobenzene	ND		ug/kg	2000	--
cis-1,2-Dichloroethene	ND		ug/kg	500	--
1,2-Dichloroethene, Total	ND		ug/kg	500	--
Dichlorodifluoromethane	ND		ug/kg	5000	--

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 10/07/14 08:35
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01 Batch: WG728757-6					
1,2-Dibromoethane	ND		ug/kg	2000	--
1,3-Dichloropropane	ND		ug/kg	2000	--
1,1,1,2-Tetrachloroethane	ND		ug/kg	500	--
o-Chlorotoluene	ND		ug/kg	2000	--
p-Chlorotoluene	ND		ug/kg	2000	--
Hexachlorobutadiene	ND		ug/kg	2000	--
1,2,4-Trichlorobenzene	ND		ug/kg	2000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	90		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG728757-1 WG728757-2										
Methylene chloride	106		82		70-130		26	Q		20
1,1-Dichloroethane	112		112		70-130		0			20
Chloroform	108		108		70-130		0			20
Carbon tetrachloride	110		111		70-130		1			20
1,2-Dichloropropane	104		108		70-130		4			20
Dibromochloromethane	86		87		70-130		1			20
1,1,2-Trichloroethane	100		101		70-130		1			20
Tetrachloroethene	108		108		70-130		0			20
Chlorobenzene	102		103		70-130		1			20
Trichlorofluoromethane	128		127		70-130		1			20
1,2-Dichloroethane	112		115		70-130		3			20
1,1,1-Trichloroethane	114		113		70-130		1			20
Bromodichloromethane	98		100		70-130		2			20
trans-1,3-Dichloropropene	92		94		70-130		2			20
cis-1,3-Dichloropropene	94		97		70-130		3			20
1,1-Dichloropropene	115		116		70-130		1			20
Bromoform	78		80		70-130		3			20
1,1,2,2-Tetrachloroethane	94		97		70-130		3			20
Benzene	109		109		70-130		0			20
Toluene	99		99		70-130		0			20
Ethylbenzene	102		100		70-130		2			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Parameter	LCS		Qual	LCS D		Qual	%Recovery		RPD	Qual	RPD	Limits
	%Recovery			%Recovery			%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG728757-1 WG728757-2												
Chloromethane	134		Q	125			70-130		7			20
Bromomethane	115			113			70-130		2			20
Vinyl chloride	133		Q	127			70-130		5			20
Chloroethane	121			122			70-130		1			20
1,1-Dichloroethene	113			111			70-130		2			20
trans-1,2-Dichloroethene	111			109			70-130		2			20
Trichloroethene	109			110			70-130		1			20
1,2-Dichlorobenzene	99			102			70-130		3			20
1,3-Dichlorobenzene	104			104			70-130		0			20
1,4-Dichlorobenzene	103			105			70-130		2			20
Methyl tert butyl ether	94			96			70-130		2			20
p/m-Xylene	99			96			70-130		3			20
o-Xylene	97			96			70-130		1			20
cis-1,2-Dichloroethene	104			105			70-130		1			20
Dibromomethane	97			101			70-130		4			20
1,2,3-Trichloropropane	100			98			70-130		2			20
Styrene	95			97			70-130		2			20
Dichlorodifluoromethane	121			114			70-130		6			20
Acetone	101			103			70-130		2			20
Carbon disulfide	108			100			70-130		8			20
2-Butanone	101			100			70-130		1			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG728757-1 WG728757-2										
4-Methyl-2-pentanone	74		79		70-130		7			20
2-Hexanone	76		79		70-130		4			20
Bromochloromethane	101		104		70-130		3			20
Tetrahydrofuran	112		114		70-130		2			20
2,2-Dichloropropane	109		106		70-130		3			20
1,2-Dibromoethane	90		93		70-130		3			20
1,3-Dichloropropane	102		102		70-130		0			20
1,1,1,2-Tetrachloroethane	96		97		70-130		1			20
Bromobenzene	96		98		70-130		2			20
n-Butylbenzene	114		114		70-130		0			20
sec-Butylbenzene	107		107		70-130		0			20
tert-Butylbenzene	102		102		70-130		0			20
o-Chlorotoluene	108		105		70-130		3			20
p-Chlorotoluene	106		108		70-130		2			20
1,2-Dibromo-3-chloropropane	67	Q	73		70-130		9			20
Hexachlorobutadiene	98		99		70-130		1			20
Isopropylbenzene	103		103		70-130		0			20
p-Isopropyltoluene	104		105		70-130		1			20
Naphthalene	81		86		70-130		6			20
n-Propylbenzene	107		107		70-130		0			20
1,2,3-Trichlorobenzene	96		98		70-130		2			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	Qual	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG728757-1 WG728757-2										
1,2,4-Trichlorobenzene	100		103		70-130		3			20
1,3,5-Trimethylbenzene	105		106		70-130		1			20
1,2,4-Trimethylbenzene	102		103		70-130		1			20
Ethyl ether	101		94		70-130		7			20
Isopropyl Ether	116		119		70-130		3			20
Ethyl-Tert-Butyl-Ether	98		102		70-130		4			20
Tertiary-Amyl Methyl Ether	89		92		70-130		3			20
1,4-Dioxane	79		80		70-130		1			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	109		110		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	96		96		70-130
Dibromofluoromethane	104		104		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG728757-4 WG728757-5										
Methylene chloride	91		88		70-130		3		20	
1,1-Dichloroethane	106		99		70-130		7		20	
Chloroform	101		96		70-130		5		20	
Carbon tetrachloride	100		90		70-130		11		20	
1,2-Dichloropropane	101		98		70-130		3		20	
Dibromochloromethane	84		81		70-130		4		20	
1,1,2-Trichloroethane	97		93		70-130		4		20	
Tetrachloroethene	98		90		70-130		9		20	
Chlorobenzene	95		91		70-130		4		20	
Trichlorofluoromethane	117		102		70-130		14		20	
1,2-Dichloroethane	111		108		70-130		3		20	
1,1,1-Trichloroethane	104		95		70-130		9		20	
Bromodichloromethane	92		90		70-130		2		20	
trans-1,3-Dichloropropene	90		87		70-130		3		20	
cis-1,3-Dichloropropene	92		89		70-130		3		20	
1,1-Dichloropropene	103		97		70-130		6		20	
Bromoform	76		72		70-130		5		20	
1,1,2,2-Tetrachloroethane	93		92		70-130		1		20	
Benzene	100		95		70-130		5		20	
Toluene	92		86		70-130		7		20	
Ethylbenzene	92		87		70-130		6		20	



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG728757-4 WG728757-5										
Chloromethane	121		108		70-130		11			20
Bromomethane	110		102		70-130		8			20
Vinyl chloride	123		110		70-130		11			20
Chloroethane	114		106		70-130		7			20
1,1-Dichloroethene	102		90		70-130		13			20
trans-1,2-Dichloroethene	100		92		70-130		8			20
Trichloroethene	99		94		70-130		5			20
1,2-Dichlorobenzene	95		92		70-130		3			20
1,3-Dichlorobenzene	98		94		70-130		4			20
1,4-Dichlorobenzene	98		93		70-130		5			20
Methyl tert butyl ether	95		92		70-130		3			20
p/m-Xylene	88		84		70-130		5			20
o-Xylene	89		86		70-130		3			20
cis-1,2-Dichloroethene	98		94		70-130		4			20
Dibromomethane	96		95		70-130		1			20
1,2,3-Trichloropropane	98		96		70-130		2			20
Styrene	90		86		70-130		5			20
Dichlorodifluoromethane	110		94		70-130		16			20
Acetone	109		104		70-130		5			20
Carbon disulfide	89		80		70-130		11			20
2-Butanone	106		102		70-130		4			20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Parameter	LCS		LCS D		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG728757-4 WG728757-5										
4-Methyl-2-pentanone	80		82		70-130		2		20	20
2-Hexanone	83		82		70-130		1		20	20
Bromochloromethane	98		94		70-130		4		20	20
Tetrahydrofuran	119		116		70-130		3		20	20
2,2-Dichloropropane	97		89		70-130		9		20	20
1,2-Dibromoethane	92		88		70-130		4		20	20
1,3-Dichloropropane	98		96		70-130		2		20	20
1,1,1,2-Tetrachloroethane	92		88		70-130		4		20	20
Bromobenzene	94		89		70-130		5		20	20
n-Butylbenzene	102		96		70-130		6		20	20
sec-Butylbenzene	96		90		70-130		6		20	20
tert-Butylbenzene	93		88		70-130		6		20	20
o-Chlorotoluene	97		93		70-130		4		20	20
p-Chlorotoluene	99		94		70-130		5		20	20
1,2-Dibromo-3-chloropropane	71		70		70-130		1		20	20
Hexachlorobutadiene	92		88		70-130		4		20	20
Isopropylbenzene	94		88		70-130		7		20	20
p-Isopropyltoluene	95		89		70-130		7		20	20
Naphthalene	84		83		70-130		1		20	20
n-Propylbenzene	97		91		70-130		6		20	20
1,2,3-Trichlorobenzene	96		92		70-130		4		20	20



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD	Limits
	%Recovery	Qual	%Recovery	Qual	Qual	Limits				
MCP Volatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG728757-4 WG728757-5										
1,2,4-Trichlorobenzene	97		94		70-130		3			20
1,3,5-Trimethylbenzene	96		92		70-130		4			20
1,2,4-Trimethylbenzene	95		91		70-130		4			20
Ethyl ether	100		96		70-130		4			20
Isopropyl Ether	116		110		70-130		5			20
Ethyl-Tert-Butyl-Ether	100		97		70-130		3			20
Tertiary-Amyl Methyl Ether	89		87		70-130		2			20
1,4-Dioxane	93		94		70-130		1			20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	111		111		70-130
Toluene-d8	100		98		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	102		102		70-130



PCBS

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

SAMPLE RESULTS

Lab ID: L1422969-01 D
 Client ID: MW15D/B DNAPL
 Sample Location: NEW BEDFORD, MA
 Matrix: Oil
 Analytical Method: 97,8082
 Analytical Date: 10/07/14 14:17
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 09/30/14 09:30
 Date Received: 09/30/14
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 10/04/14 14:48
 Cleanup Method: EPA 3665A
 Cleanup Date: 10/05/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 10/05/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
MCP Polychlorinated Biphenyls - Westborough Lab							
Aroclor 1016	ND		mg/kg	38300	--	10000	A
Aroclor 1221	ND		mg/kg	38300	--	10000	A
Aroclor 1232	ND		mg/kg	38300	--	10000	A
Aroclor 1242	381000		mg/kg	38300	--	10000	B
Aroclor 1248	ND		mg/kg	38300	--	10000	A
Aroclor 1254	124000		mg/kg	38300	--	10000	A
Aroclor 1260	ND		mg/kg	38300	--	10000	A
Aroclor 1262	ND		mg/kg	38300	--	10000	A
Aroclor 1268	ND		mg/kg	38300	--	10000	A
PCBs, Total	505000		mg/kg	38300	--	10000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 97,8082
Analytical Date: 10/05/14 13:24
Analyst: TQ

Extraction Method: EPA 3580A
Extraction Date: 10/04/14 14:48
Cleanup Method: EPA 3665A
Cleanup Date: 10/05/14
Cleanup Method: EPA 3660B
Cleanup Date: 10/05/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG728145-1						
Aroclor 1016	ND		mg/kg	3.78	--	A
Aroclor 1221	ND		mg/kg	3.78	--	A
Aroclor 1232	ND		mg/kg	3.78	--	A
Aroclor 1242	ND		mg/kg	3.78	--	A
Aroclor 1248	ND		mg/kg	3.78	--	A
Aroclor 1254	ND		mg/kg	3.78	--	A
Aroclor 1260	ND		mg/kg	3.78	--	A
Aroclor 1262	ND		mg/kg	3.78	--	A
Aroclor 1268	ND		mg/kg	3.78	--	A
PCBs, Total	ND		mg/kg	3.78	--	A

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	90		30-150	A
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	132		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual	Limits	Column
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch: WG728145-2 WG728145-3								
Atrodor 1016	86		90		40-140		5	30 A
Atrodor 1260	74		77		40-140		4	30 A

Surrogate	LCS		LCSD		Acceptance	
	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		88		30-150	A
Decachlorobiphenyl	101		109		30-150	A
2,4,5,6-Tetrachloro-m-xylene	90		93		30-150	B
Decachlorobiphenyl	127		133		30-150	B



Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1422969-01A	Vial unpreserved	A	N/A	2.3	Y	Absent	MCP-8082-10(365),MCP-8260-CHLR-10(14)
L1422969-01B	Vial HCl preserved	A	N/A	2.3	Y	Absent	SHIPPING(0)
L1422969-01C	Vial unpreserved	A	N/A	2.3	Y	Absent	MCP-8082-10(365)
L1422969-01D	Amber 250ml unpreserved	A	N/A	2.3	Y	Absent	SHIPPING()

*Values in parentheses indicate holding time in days

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report



Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

Data Qualifiers

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

Project Name: AEROVOX IRA
Project Number: 39744051.40003

Lab Number: L1422969
Report Date: 10/29/14

REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised April 15, 2014

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

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

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

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

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

SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F,**

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

SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1

Serial No: 10291412-12

ALPHA Job #: U472969

Date Rec'd in Lab: 9/30/14

Project Information

Project Name: Aerovox IPA

Project Location: New Bedford, MA

Project #: 39744051.40003

Project Manager: J. LeClair / M. Wade

ALPHA Quote #: Turn-Around Time

Standard Standard RUSH (only confirmed if pre-approved)

Date Due: 10/8/14 Time:

Other Project Specific Requirements/Comments/Detection Limits:
 If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
 (Note: All CAM methods for Inorganic analyses require MS every 20 soil samples)

Client Information

Client: URS

Address: 1155 Elm St, Suite 401
Manchester, NH 03101

Phone: (603) 606-4818

Fax: (603) 401-7322

Email: judith.leclair@urs.com

Regulatory Requirements/Report Limits

State / Fed Program: MA-MCP Criteria:

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

Are MCP Analytical Methods Required? Yes No

Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

Are CT RCP (Reasonable Confidence Protocols) Required? Yes No

Sample Handling

Filtration:

Container Type: VE Preservative: AA

Sample Specific Comments

Subcontracted Physical Parameters

PCB + CVOC

Sample Specific Comments

MA-D subcontracted samples for Melissa Gulli #

Collection Date: 9/30/14 Time: 0930 Matrix: DW/REV Sampler's Initials: JLH

Sample Specific Comments

ANALYSIS

Sample ID: MW15D/B DNAPL

Sample Specific Comments

DATE

Alpha Lab ID (Lab Use Only): 22969 31

Sample Specific Comments

DATE

Alpha Lab ID (Lab Use Only):

Sample Specific Comments

DATE

Alpha Lab ID (Lab Use Only):

Sample Specific Comments

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Alpha Lab ID (Lab Use Only):

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Alpha Lab ID (Lab Use Only):

Sample Specific Comments

DATE

Alpha Lab ID (Lab Use Only):

PLEASE ANSWER QUESTIONS ABOVE!
 IS YOUR PROJECT MA MCP or CT RCP?
 Received By: E. Gulli Date/Time: 9/30/14 1650

Received By: E. Gulli Date/Time: 9/30/14 1650

Received By: E. Gulli Date/Time: 9/30/14 1650

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1422969

Instrument ID: Voall10.i Calibration Date: 06-OCT-2014 Time: 09:06

Lab File ID: 1006A01 Init. Calib. Date(s): 28-SEP-2 28-SEP-2

Sample No: 8260 CCAL Init. Calib. Times : 10:14 13:20

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.23145	.28111	.1	21	20	F
chloromethane	.52656	.705	.1	34	20	F
vinyl chloride	.47097	.6252	.1	33	20	F
bromomethane	.18458	.21284	.1	15	20	
chloroethane	.24071	.29155	.1	21	20	F
trichlorofluoromethane	.42917	.55084	.1	28	20	F
ethyl ether	.18706	.18972	.05	1	20	
1,1,-dichloroethene	.2484	.27982	.1	13	20	
carbon disulfide	.89982	.97584	.1	8	20	
methylene chloride	100	106	.1	6	20	
acetone	100	101	.1	1	20	
trans-1,2-dichloroethene	.29267	.3243	.1	11	20	
methyl tert butyl ether	.87703	.82321	.1	-6	20	
Diisopropyl Ether	1.6052	1.8645	.05	16	20	
1,1-dichloroethane	.67287	.75412	.2	12	20	
Ethyl-Tert-Butyl-Ether	1.3902	1.3676	.05	-2	20	
cis-1,2-dichloroethene	.32435	.3384	.1	4	20	
2,2-dichloropropane	.47557	.51806	.05	9	20	
bromochloromethane	.14332	.14499	.05	1	20	
chloroform	.5551	.60144	.2	8	20	
carbontetrachloride	.40946	.44866	.1	10	20	
tetrahydrofuran	.13468	.15038	.05	12	20	
1,1,1-trichloroethane	.47945	.54656	.1	14	20	
2-butanone	.19229	.19386	.1	1	20	
1,1-dichloropropene	.39342	.45352	.05	15	20	
benzene	1.1487	1.2525	.5	9	20	
Tertiary-Amyl Methyl Ether	.87055	.77087	.05	-11	20	
1,2-dichloroethane	.51663	.5768	.1	12	20	
trichloroethene	.30944	.33848	.2	9	20	
dibromomethane	.17047	.16564	.05	-3	20	
1,2-dichloropropane	.36212	.37734	.1	4	20	
bromodichloromethane	.40576	.39832	.2	-2	20	
1,4-dioxane	.00315	.0025	.05	-21	20	F
cis-1,3-dichloropropene	.47817	.45032	.2	-6	20	
toluene	1.0377	1.0294	.4	-1	20	
4-methyl-2-pentanone	.15639	.11512	.1	-26	20	F
tetrachloroethene	.4222	.45761	.2	8	20	
trans-1,3-dichloropropene	.57343	.52448	.1	-9	20	

FORM VII MCP-8260-CHLR-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1422969

Instrument ID: Voal10.i Calibration Date: 06-OCT-2014 Time: 09:06

Lab File ID: 1006A01 Init. Calib. Date(s): 28-SEP-2 28-SEP-2

Sample No: 8260 CCAL Init. Calib. Times : 10:14 13:20

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,1,2-trichloroethane	.26066	.25996	.1	0	20
chlorodibromomethane	.37731	.32532	.1	-14	20
1,3-dichloropropane	.55471	.56314	.05	2	20
1,2-dibromoethane	.32082	.29004	.1	-10	20
2-hexanone	.41535	.31415	.1	-24	20
chlorobenzene	1.0698	1.0864	.5	2	20
ethyl benzene	100	102	.1	2	20
1,1,1,2-tetrachloroethane	.39607	.38037	.05	-4	20
p/m xylene	200	198	.1	-1	20
o xylene	.74896	.72548	.3	-3	20
styrene	1.2323	1.1725	.3	-5	20
bromoform	.49372	.38316	.1	-22	20
isopropylbenzene	3.6015	3.6981	.1	3	20
bromobenzene	.91938	.88448	.05	-4	20
n-propylbenzene	4.0977	4.3793	.05	7	20
1,1,2,2,-tetrachloroethane	.77091	.7225	.3	-6	20
2-chlorotoluene	2.5859	2.7919	.05	8	20
1,3,5-trimethylbenzene	2.9877	3.1321	.05	5	20
1,2,3-trichloropropane	.62029	.62089	.05	0	20
4-chlorotoluene	2.5433	2.6997	.05	6	20
tert-butylbenzene	2.5981	2.6598	.05	2	20
1,2,4-trimethylbenzene	3.0448	3.1032	.05	2	20
sec-butylbenzene	3.7752	4.0325	.05	7	20
p-isopropyltoluene	3.2510	3.3692	.05	4	20
1,3-dichlorobenzene	1.7058	1.7669	.6	4	20
1,4-dichlorobenzene	1.7192	1.7759	.5	3	20
n-butylbenzene	2.8075	3.2082	.05	14	20
1,2-dichlorobenzene	1.5905	1.5693	.4	-1	20
1,2-dibromo-3-chloropropane	.12939	.08722	.05	-33	20
hexachlorobutadiene	.68223	.66924	.05	-2	20
1,2,4-trichlorobenzene	1.1473	1.1520	.2	0	20
naphthalene	2.7002	2.1819	.05	-19	20
1,2,3-trichlorobenzene	1.0884	1.0415	.05	-4	20
dibromofluoromethane	.24823	.25718	.05	4	30
1,2-dichloroethane-d4	.32778	.35841	.05	9	30
toluene-d8	1.2512	1.2441	.05	-1	30
4-bromofluorobenzene	.94147	.90737	.05	-4	30

FORM VII MCP-8260-CHLR-10



TOGETHER WE POWER THE WORLDSM

The World Leader in Diagnostic Instruments and Knowledge Services for Electric Power

January 7, 2015

Melissa Gulli
Alpha Analytical
222 International Dr # 155
Portsmouth, NH 03801

**Doble Materials Laboratory
Report 146837**

One sample of a 2-phase liquid was received for testing on December 11, 2014. The chain of custody form was duly signed when received.

As requested by the customer, the following tests were conducted.

Test	Viscosity at 40°C ASTM D445	Specific Gravity D4052 at 60°F	Surface Tension Doble Method	Interfacial Tension ASTM D971
Phase 1, Water (?)	0.742 mm ² /s	0.9986	41.4 mN/m	Could not be performed ¹
Phase 2	22.6 mm ² /s	1.2297	22.9 mN/m	Could not be performed ²

Note 1: IFT could not be performed as the specific gravity was too close to that of water and thus no interface formed between the water and the sample layer in order to pull the platinum ring through.

Note 2: IFT could not be performed as the specific gravity was greater than that of water which is 1. The equipment is made to pull the platinum ring from sample/water interface in which the sample is on top of the water not below it. Because the material (phase 2) was heavier than water, the task would involve pushing the platinum ring from sample through the water layer. Most of the analytical equipment manufactured to perform this teste (such as ours) can only pull and not push, thus the test could not be conducted.

I hope that this report provides you with helpful information on this subject. If you have any questions or comments please feel free to contact me.

Sincerely,

Lance Lewand
Director, Insulating Materials Laboratory
Doble Engineering Company

DNAPL Mobility Calculations

Job Aerovox

 Project No. 2396

 Sheet of

 Description BASELINE DNAPL

 Computed by JColl

 Date 5-18-15
PHYSICAL PROPERTY DATA EVALUATION

 Checked by RJV

 Date 6/10/15

Reference

TASK

Establish baseline physical property data for DNAPL utilizing site-specific DNAPL composition results, physical property results and literature values for mixed DNAPLs.

APPROACH

Define / establish baseline DNAPL physical properties including specific gravity, viscosity, interfacial tension and contact angle for use in empirical and analytical equations to estimate the mobility potential of DNAPL.

DNAPL COMPOSITION

REF. 1

CONSTITUENT	PERCENT	NORMALIZED PERCENT (BY WEIGHT)
PCE	0.81	1.5
TCE	2.0	3.6
1,4-Dichlorobenzene	0.2	0.4
cis-1,2-DCE	0.13	0.2
1,2,4-Trichlorobenzene	1.3	2.4
Arochlor 1242	38.1	69.3
Arochlor 1254	12.4	22.6
		$\Sigma = 100\%$

DNAPL PROPERTIES

DNAPL ID	DENSITY (g/cc)	VISCOSITY (cP)	INTERFACIAL TENSION (dyn/cm)	CONTACT ANGLE (°)
MW-15B/D DNAPL	1.22	27.8	15.0	—
LITERATURE BASED ON NORMALIZED COMPOSITION	1.42	37.0	34.6	37.5
BASELINE SENSITIVITY ANALYSIS	1.22	27.8	15.0	37.5
	1.2-1.44	25-40	5-25	20-75

REFERENCES

1) ALATA ANALYTICAL, 10-7-14, ANALYTICAL REPORT, ISSUED TO URS, LAB NO L1422969.

NOTE

LITERATURE REFERENCES PROVIDED ON PAGE 2/2.

R.V.
6/10/16

NOTE BELOW

Determination of Baseline DNAPL Physical Properties

DNAPL Properties	% Volume ⁽⁵⁾	Density ⁽¹⁾ (g/cc)	Density ⁽²⁾ (g/cc)	Density ⁽³⁾ (g/cc)	Density ⁽⁴⁾ (g/cc)	Contact Angle ⁽²⁾ (degrees)	Interfacial Tension ⁽²⁾ (dyne/cm)	Interfacial Tension ⁽³⁾ (dyne/cm)	Interfacial Tension ⁽⁴⁾ (dyne/cm)	Viscosity ⁽¹⁾ (cp)	Viscosity ⁽²⁾ (cp)
Site-Specific (MW-15B/D)											
DNAPL Composition⁽³⁾ and Literature Values for Physical Properties											
PCE	1.5%	nr	1.623	nr	nr	nr	44.4	nr	nr	nr	0.89
TCE	3.6%	nr	1.464	nr	nr	nr	34.5	nr	nr	nr	0.57
1,4-Dichlorobenzene	0.4%	nr	nr	1.2475	nr	nr	nr	31.4	nr	nr	0.839
cis-1,2-Dichloroethene	0.2%	nr	nr	1.2837	nr	nr	nr	28	nr	nr	0.48
1,2,4-Trichlorobenzene	2.4%	nr	nr	1.459	nr	nr	nr	nr	nr	nr	nr
Arochlor 1242	69%	nr	1.392	1.381	nr	nr	nr	nr	nr	nr	24
Arochlor 1254	23%	nr	1.505	nr	nr	nr	nr	nr	nr	nr	nr
Total %	100%										

Reported DNAPL Constituents ⁽⁵⁾	Density ⁽²⁾ (g/cc)	Contact Angle ⁽²⁾ (degrees)	Interfacial Tension ⁽²⁾ (dyne/cm)	Viscosity ⁽²⁾ (cp)
PCE	1.62	33-45	n/a	n/a
TCE	1.46	nr	n/a	n/a
1,4-Dichlorobenzene	1.25	27-34	n/a	n/a
cis-1,2-Dichloroethene	1.28	nr	n/a	n/a
1,2,4-Trichlorobenzene	1.46	32-48	n/a	n/a
Arochlor 1242	1.39	nr	n/a	n/a
Arochlor 1254	1.51	nr	n/a	n/a
Normalized DNAPL Properties	1.42	37.5	34.6	37
Site-Specific DNAPL (MW-15B/D) Testing Results - BASELINE PARAMETERS				
Site-Specific (MW-15B/D)	1.22	37.5	15	27.8
Range of Baseline Parameters for Sensitivity Evaluation				
Conservative	1.10	30	16.5	30.6
Immoderate	1.34	50	13.5	25.0

References

- (1) Doble 2014, Site-Specific DNAPL Testing (MW-15B/D).
 - (2) Cohen, R. M., & Mercer, J.W. (1993), DNAPL site evaluation. Robert S. Kerr Environmental Research Laboratory and U.S. EPA Office of Research and Development, EPA/600/R-93/022
 - (3) TOXNET, Toxicology Data Network, Hazardous Substances Data Bank (HSDB), U.S. National Library of Medicine, web-based database
 - (4) Torkelson Geochemistry, Inc., 2015. Site-Specific DNAPL Testing (MW-15B/D).
 - (5) Alpha Labs, 10-7-14 Analytical Report, Sample ID L1422969-01. Percent volume by weight - **NORMALIZED; i.e., not inc. oil fraction.**
- n/a = indicates not applicable
nr = indicates value not reported

Project 2316

Job Aerovox

 Project No. 2396

 Sheet of

 Description GRAIN SIZE DISTRIBUTION
EVALUATION

 Computed by JColl

 Date 5-18-15

 Checked by RTV

 Date 6/10/15

Reference

TASK

Evaluate grain size distribution (GSD) for select site-specific soil samples collected in April 2015 in order to determine properties for the unconsolidated materials overlying bedrock for use in DNAPL mobility assessment.

APPROACH

- 1) Assign site-specific GSD data to site-specific stratigraphic unit.
- 2) Determine mean grain size for each site-specific stratigraphic unit, as well as effective pore radii.

$$\text{MEAN GRAIN SIZE } (\bar{x}) = \frac{D_{85} + D_{50} + D_{15}}{3} \quad \checkmark$$

REFERENCE 1

$$\text{EFFECTIVE PORE RADIUS } (r_e) = \frac{0.2 (D_{10})}{2} \quad \checkmark$$

REFERENCE 2

RAW DATA

GSD for six (6) samples evaluated and assigned to three (3) stratigraphic units: Shallow Overburden, Deep Overburden and Fill.

REFERENCE 3

RESULTS

Page 2 of 2 present tabulated results.

Summary

<u>Unit</u>	<u>\bar{x} (mm)</u>	<u>r_e (mm)</u>	<u>No. Samples</u>
FILL	0.44	5.4×10^{-3}	1
SH. OVRBND	2.0339	0.0397	2
DEEP OVRBND	5.9286	0.0167	3

REFERENCES

- 1) BOGGS, S., 1987, PRINCIPLES OF SEDIMENTOLOGY AND STRATIGRAPHY, MERRIL PUBLISHING CO., COLUMBUS, OH, 784 pp.
- 2) HOLTZ, R.D. AND W.D. KOVACS, 1981, INTRODUCTION TO GEOTECHNICAL ENGINEERING, PRENTICE-HALL, ENGLEWOOD CLIFFS, NJ, 733 pp.
- 3) ALPHA ANALYTICAL, 5-8-15, ANALYTICAL REPORT, ISSUED TO AECOM, LAB NO. L1508161.

Attachment 1 -
Grain Size Distribution
Data Evaluation

RTV
6/14/15

Location	Lab Sample ID	USCS Classification	Total Solids (%)	Top (ft)	Bottom (ft)	Grain Size (mm)										Assigned Unit
						D95	D90	D85	D80	D60	D50	D30	D20	D15	D10	
MMW-30B	L-1508161-02	SW	89.6	1	3	4.5955	2.0564	1.0166	0.6903	0.3077	0.2336	0.1326	0.0832	0.0656	0.0542	FILL
MMW-31B	na	na	86.6	8	10	9.0637	6.4206	5.0221	4.1236	2.2069	1.6550	0.9051	0.6405	0.5252	0.4163	Shallow Overburden
B15GS	L-1508161-14	SP	87.6	15	17	6.1023	4.3016	3.3627	2.7528	1.5133	1.1786	0.7166	0.5414	0.4599	0.3772	Shallow Overburden
B15GS (DUP-01)	WG782900-1	SP	na	15	17											Shallow Overburden
MMW-30B	na	na	86.4	23	25											
B15GS	L-1508161-15	SP	79.7	22	24	1.2640	0.8940	0.7318	0.6309	0.4250	0.3678	0.2779	0.2339	0.2084	0.1776	Deep Overburden
B15GS	L-1508161-16	SW	86.6	25	29	14.7825	6.8628	4.9304	3.9120	1.9468	1.4041	0.6835	0.4251	0.3026	0.1905	Deep Overburden
B15GS	L-1508161-17	SW-SM	83.6	30	32	63.6524	52.9896	43.7812	35.6851	3.5403	1.4242	0.4640	0.2803	0.2068	0.1328	Deep Overburden

* Grain Size Data from April 2015 Investigation, AECOM 2015

Descriptive Statistic of Mean Grain Size (mm)	Shallow Overburden		Deep Overburden	
	Mean	2.0339	5.9286	2.0339
Standard Error	0.3669	4.6329	0.3669	4.6329
Median	2.0339	2.2124	2.0339	2.2124
Mode	n/a	n/a	n/a	n/a
Standard Deviation	0.5188	8.0244	0.5188	8.0244
Sample Variance	0.2692	64.3905	0.2692	64.3905
Kurtosis	n/a	n/a	n/a	n/a
Skewness	n/a	1.6370	n/a	1.6370
Range	0.7337	14.7014	0.7337	14.7014
Minimum	1.6671	0.4360	1.6671	0.4360
Maximum	2.4008	15.1374	2.4008	15.1374
Sum	4.0678	17.7858	4.0678	17.7858
Count	2	3	2	3

Descriptive Statistic of Effective Pore Radius (mm)	Shallow Overburden		Deep Overburden	
	Mean	0.0397	0.0167	0.0397
Standard Error	0.0020	0.0017	0.0020	0.0017
Median	0.0397	0.0178	0.0397	0.0178
Mode	n/a	n/a	n/a	n/a
Standard Deviation	0.0028	0.0030	0.0028	0.0030
Sample Variance	0.0000	0.0000	0.0000	0.0000
Kurtosis	n/a	n/a	n/a	n/a
Skewness	n/a	-1.3852	n/a	-1.3852
Range	0.0039	0.0058	0.0039	0.0058
Minimum	0.0377	0.0133	0.0377	0.0133
Maximum	0.0416	0.0191	0.0416	0.0191
Sum	0.0794	0.0501	0.0794	0.0501
Count	2	3	2	3

Descriptive Statistic of Coefficient of Uniformity	Shallow Overburden		Deep Overburden	
	Mean	4.6566	13.0904	4.6566
Standard Error	0.6446	7.1505	0.6446	7.1505
Median	4.6566	10.2194	4.6566	10.2194
Mode	n/a	n/a	n/a	n/a
Standard Deviation	0.9117	12.3851	0.9117	12.3851
Sample Variance	0.8311	153.9901	0.8311	153.9901
Kurtosis	n/a	0.9871	n/a	0.9871
Skewness	n/a	24.2659	n/a	24.2659
Range	1.2893	2.3930	1.2893	2.3930
Minimum	4.0119	2.3930	4.0119	2.3930
Maximum	5.3012	26.6569	5.3012	26.6569
Sum	9.3132	39.2713	9.3132	39.2713
Count	2	3	2	3

Descriptive Statistic of Coefficient of Curvature	Shallow Overburden		Deep Overburden	
	Mean	0.8956	0.9135	0.8956
Standard Error	0.0040	0.2378	0.0040	0.2378
Median	0.8956	1.0232	0.8956	1.0232
Mode	n/a	n/a	n/a	n/a
Standard Deviation	0.0056	0.4120	0.0056	0.4120
Sample Variance	0.0000	0.1697	0.0000	0.1697
Kurtosis	n/a	n/a	n/a	n/a
Skewness	n/a	-1.1122	n/a	-1.1122
Range	0.0079	0.6018	0.0079	0.6018
Minimum	0.8917	0.4579	0.8917	0.4579
Maximum	0.8996	1.2597	0.8996	1.2597
Sum	1.7913	2.7408	1.7913	2.7408
Count	2	3	2	3

Sample ID	Mean	Cu	Cc	Effective Pore Radius (mm)
MMW-31B	na	na	na	na
B15GS	2.40	5.30	0.89	4.2E-02
B15GS (DUP-01)	1.67	4.01	0.90	3.8E-02
MMW-30B	na	na	na	na
B15GS	0.44	2.39	1.02	1.8E-02
B15GS	2.21	10.22	1.26	1.9E-02
B15GS	15.14	26.66	0.46	1.3E-02

Project 2396

TASK

Utilize site-specific hydrogeologic and DNAPL properties to evaluate the migration potential and mobility of DNAPL within the subsurface materials at the AeroVox site.

APPROACH

(1) DEFINE BASELINE HYDROGEOLOGIC AND DNAPL PROPERTIES

<u>Hydrogeologic Unit</u>	<u>Parameter</u>	<u>Value</u>	<u>(VARIES)</u>	<u>REF.</u>	<u>✓</u>
Shallow Overburden	Gradient	0.0228		REF. 1	✓
	Gradient	0.0035 (reverse)			
	Hyd. Cond. [k]	0.014 cm/sec		REF. 2	✓
Deep Overburden	Gradient	0.0023			
	Gradient	0.0024 (reverse)			
	Hyd Cond [k]	0.0446 cm/sec		REF. 2	
Bedrock (upper)	Hyd. Cond [k]	0.0099 cm/sec		REF. 2	
	Gradient	0.0038 (0.0035 reverse)			
<u>Vertical Gradients</u>		<u>Value</u>	<u>Note</u>	<u>REF.</u>	<u>✓</u>
Deep to Sh. Overburden		0.0086	Upward; 3 of 4 data pts		
		0.0209	Downward; 1 of 4 data pts		
Bedrock to Overburden		0.0042	Upward; 4 of 6 data pts.		✓
		0.0160	Downward; 2 of 6 data pts		

+SEE ATTACHMENT 1

DNAPL PROPERTIES

<u>PARAMETER</u>	<u>VALUE</u>	<u>UNITS</u>	<u>RANGE FOR SENSITIVITY</u>
SP. GRAVITY/DENSITY	1.22	γ/cc	1.1 - 1.34
VISCOSITY	27.8	cP	25 - 30
INTERFACIAL TENSION	15	dyne/cm	13.5 - 16.5
CONTACT ANGLE	37.5	°	30 - 50

(2) EVALUATE HORIZONTAL GRADIENTS REQUIRED TO INITIATE DNAPL MIGRATION WITHIN THE OVERBURDEN MATERIALS AT THE SITE.

$$i_c = \frac{2 \sigma \cos \phi}{r \rho_w g L}$$

WHERE:

i_c = critical hor. gradient

REF. 3 ✓

σ = interfacial tension

ϕ = contact angle

r = pore radius

ρ_w = groundwater density

L = DNAPL body length

g = gravitational constant

Job AERUVOX

Project No. 2394

Sheet _____ of _____

Description DNAPL MOBILITY EVALUATION

Computed by Roll R

Date 5-19-15 6/7/15

Checked by RSV

Date 6/10/15 REV.

Reference

- APPROACH (cont) (2) (a) Calculate range of critical gradients for varying contiguous DNAPL body lengths
 (b) Calculate length of DNAPL body that will migrate at site-specific hydraulic gradients
 * SEE ATTACHMENT 1 FOR SOLUTION RESULTS.

SUMMARY

- (a) CRITICAL GRADIENTS REQUIRED TO INITIATE DNAPL MOBILIZATION OF A 1-FOOT DNAPL BODY (CONTIGUOUS) BASED ON MEAN GRAIN & PORE SIZES

<u>UNIT</u>	<u>CRITICAL GRADIENT (i_c)</u>
SH OVERBURDEN	0.2480 ✓
DP. OVERBURDEN	0.5892

- (b) LENGTH OF CONTIGUOUS DNAPL BODY THAT WILL MOBILIZE AT SITE-SPECIFIC GRADIENTS (BASED ON MEAN GRAIN & PORE SIZES)

<u>UNIT</u>	<u>DNAPL BODY LENGTH (FT)</u>
SH OVERBURDEN	10.86
DP. OVERBURDEN	203 254 ✓ R.V. 6/10/15

- (c) SENSITIVITY ASSESSMENT

- (i) CRITICAL GRADIENTS MORE SENSITIVE TO VARYING DNAPL PROPERTIES (DENSITY, VISCOSITY, ϕ) THAN MEAN PORE SIZES.
 (ii) CRITICAL GRADIENT ENVELOPE FOR DEEP OVERBURDEN MORE SENSITIVE THAN SHALLOW OVERBURDEN DUE TO GSD VARIABILITY

- (d) EMPLACED SUBSURFACE DNAPL WILL READILY MIGRATE WITHIN BOTH THE SHALLOW AND DEEP OVERBURDEN MATERIALS AT THE SITE, AT A CONTIGUOUS DNAPL BODY OF ~11 FT IN SHALLOW OVERBURDEN AND ~200 FT IN DEEP OVERBURDEN.

REFERENCES (1) URS, 2014, SITE-SPECIFIC DRAWINGS, GROUNDWATER SURFACE CONTOURS, MARCH 2014 AND JUNE 2014. MAY 2015, VARIES FOR SHALLOW (lower) gradient ✓
 (2) AECOM, 2015, SLUG TEST REPORT, FORMER AERUVOX FACILITY, JANUARY. ✓
 (3) COHEN, R.M. & J.W. MERCER, 1993, DNAPL SITE EVALUATION, ROBERT S. KERK ENVIRONMENTAL RESEARCH LABORATORY, U.S. EPA OFFICE OF RESEARCH AND DEVELOPMENT, EPA/600/R-93/022. ✓

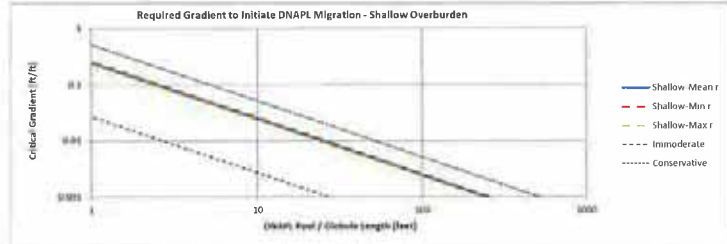
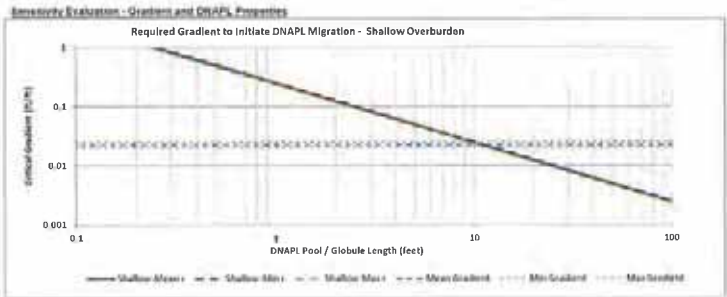
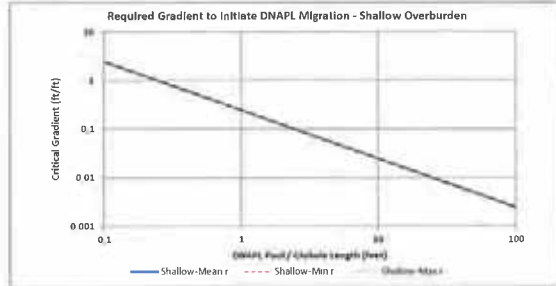
RJV
6/10/15

DEEP DEEP
↓ ↓

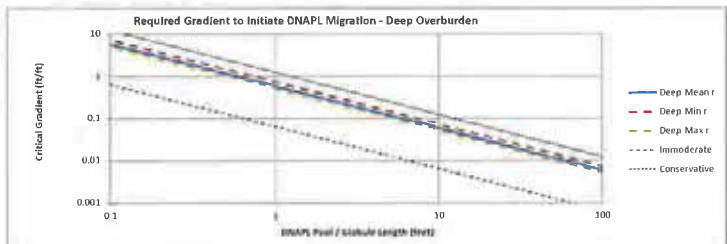
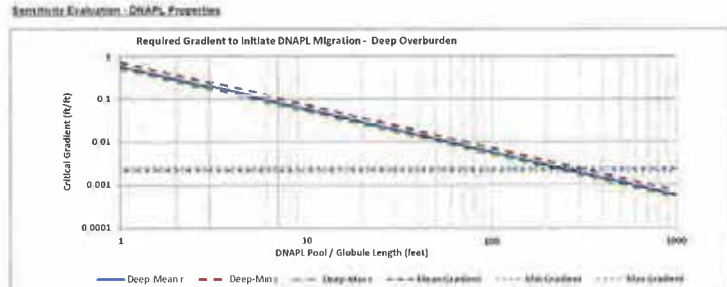
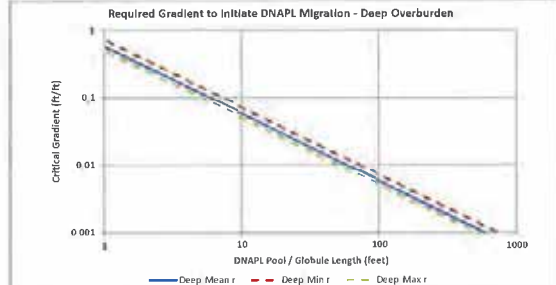
DNAPL Properties	Symbol	Units	Shallow DNAPL	Immoderate	Conservative
Contact Angle	θ	degrees	37.50	75.00	75.00
Buoyancy	β		1.00	1.00	1.00
Density (water)	ρ_w		1.00	1.00	1.00
Interfacial Tension	σ	dynes/cm	15.00	5.00	5.00
Viscosity (abs)	μ	cp	27.00	25.00	40.00
Gravity constant	g	cm/s ²	980.665		

Descriptive Statistic	Aquifer / Aquitard Effective Porosity (assumed as unity)					
	Shallow Overburden	Sh/Ov/Int-Im	Im/Ov/Int-Cons	Deep Overburden	De/Ov/Int-Im	De/Ov/Int-Cons
Mean	0.0264	0.0495	0.0298	0.0407	0.0208	0.0125
Minimum	0.0272			0.0133		
Maximum	0.0416			0.0500		

Mean Grain Size	Required Gradient to Initiate DNAPL Migration			Mean Immoderate Critical Grad (ft)	Mean Conservative Critical Grad (ft)
	Shallow-Mean r	Shallow-Min r	Shallow-Max r		
0.08	24.7912	25.0824	24.5127	2.7122	51.4310
0.1	7.4767	7.0082	7.3635	0.2712	5.1431
0.5	0.4669	0.5219	0.4121	0.0542	1.0266
1	0.2465	0.2826	0.2383	0.0271	0.5132
5	0.0496	0.0572	0.0473	0.0054	0.1029
10	0.0248	0.0286	0.0236	0.0027	0.0514
50	0.0050	0.0057	0.0047	0.0005	0.0103
100	0.0025	0.0029	0.0024	0.0003	0.0051
1000	0.0005	0.0006	0.0005	0.0001	0.0005



Mean Grain Size	Required Gradient to Initiate DNAPL Migration			Mean Immoderate Critical Grad (ft)	Mean Conservative Critical Grad (ft)
	Deep-Mean r	Deep-Min r	Deep-Max r		
0.08	58.0316	34.9834	55.6445	6.4447	122.2175
0.1	3.8904	7.4503	5.1645	0.6447	12.2217
0.5	1.1705	1.4917	1.0239	0.1329	2.4442
1	0.5465	0.7458	0.5164	0.0664	1.2221
5	0.1119	0.1482	0.1033	0.0129	0.2444
10	0.0559	0.0741	0.0516	0.0064	0.1222
50	0.0111	0.0148	0.0103	0.0013	0.0244
100	0.0056	0.0074	0.0052	0.0006	0.0122
1000	0.0011	0.0015	0.0010	0.0001	0.0012



PROJECT 2396

Job AEROVOX

Project No. 2396

Sheet of

Description DNAPL MOBILITY - VERTICAL
MIGRATION EVALUATION

Computed by Roll

Date 5-29-15

Checked by RJV

Date 6/10/15

Reference

TASK

DETERMINE CRITICAL DNAPL HEIGHT TO ENTER SATURATED ZONE (FILL) AND EACH STRATIGRAPHIC UNIT (SHALLOW AND DEEP OVERBURDEN).

APPROACH

(1) CALCULATE CRITICAL DNAPL HEIGHT TO ENTER SATURATED ZONE.

$$Z_n = \frac{2 \sigma \cos \phi}{r g \rho_n}$$

WHERE:

Z_n - critical DNAPL height REF. 1 ✓
 ρ_n - DNAPL density
*other terms defined previously

(2) DETERMINE STABLE DNAPL POOL HEIGHTS WITHIN EACH STRATIGRAPHIC UNIT (SHALLOW AND DEEP OVERBURDEN)

→ $Z_n = \frac{2 \sigma \cos \phi}{r_{\text{thrust}} g (\rho_n - \rho_w)}$
R.V. 6/10/15

WHERE:

r_{thrust} - pore radius of unit containing DNAPL REF. 1 ✓

(3) DETERMINE DNAPL HEIGHT REQUIRED FOR DNAPL TO MIGRATE VERTICALLY BETWEEN FILL AND OVERBURDEN (SH. + DEEP) UNITS

$$Z_n = \frac{2 \sigma \cos \phi}{r_{\text{lower}} g (\rho_n - \rho_w)}$$

WHERE:

r_{lower} - pore radius of lower unit REF. 1 ✓

(4) DETERMINE CRITICAL DNAPL THICKNESS REQUIRED FOR DNAPL ENTRY INTO BEDROCK FRACTURE.

$$Z_n = \frac{2 \sigma \cos \phi}{b g (\rho_n - \rho_w)}$$

WHERE:

b - fracture/aperture size REF. 1 ✓

(5) DETERMINE UPWARD GRADIENT NECESSARY TO ARREST VERTICAL DNAPL MIGRATION.

$$i_v = \frac{(\rho_n - \rho_w)}{\rho_w}$$

REF. 1 ✓

Job AERVOX

Project No. 2396

Sheet of

Description DNAPL MOBILITY - VERTICAL
MIGRATION EVALUATION

Computed by JCO

Date 5-27-15

Checked by RJV

Date 6/10/15

Reference

RESULTS

(1) DNAPL HEIGHT REQUIRED TO ENTER SATURATED ZONE (MEAN PORE SIZE)

UNIT	DNAPL (FEET)
FILL	1.82
SH. OVERBURDEN	0.25 (~3 INCHES)

(2) STABLE DNAPL HEIGHTS (MEAN PORE SIZE)

UNIT	DNAPL (FT)
SH. OVERBURDEN	1.1
DP. OVERBURDEN	2.5

(3) DNAPL HEIGHT / THRESHOLD ENTRY PRESSURE FOR OVERBURDEN (MEAN PORE SIZE)

UNIT FROM / TO	DNAPL HT. (FT)	ENTRY PRESSURE (Pa)
FILL TO SH. OVRBRDN	1.13	741
SH. TO DEEP OVRBRDN	2.52	1,656

(4) CRITICAL DNAPL THICKNESS TO ENTER BEDROCK FRACTURE

BX FRACTURE APERTURE (MM)	DNAPL (CM)
0.1	13.6
1.0	1.36
10.0	0.14

(5) UPWARD GRADIENT REQUIRED TO PROHIBIT VERTICALLY DOWNWARD DNAPL MIGRATION = 0.220

(A) BEDROCK TO OVERBURDEN VERTICAL GRADIENT (UPWARD) = 0.0042

(i) EXISTING GRADIENT 53 x LOWER THAN REQUIRED

(B) SH. TO DEEP OVERBURDEN VERTICAL GRADIENT (UPWARD) = 0.0086

(ii) EXISTING GRADIENT 25 x LOWER THAN REQUIRED

SENSITIVITY VARIED DNAPL, GRAIN SIZE AND WATER DENSITY PROPERTIES, SEE SHEET 3.

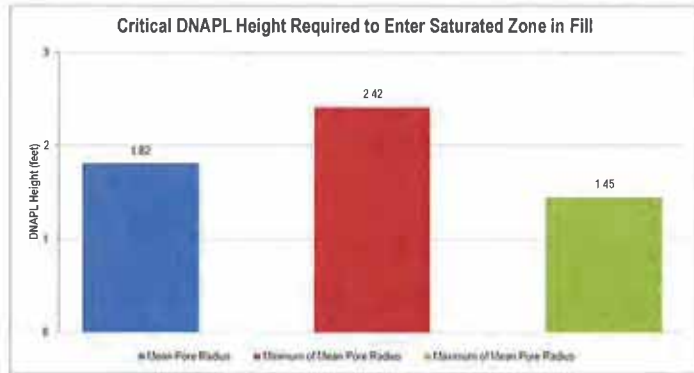
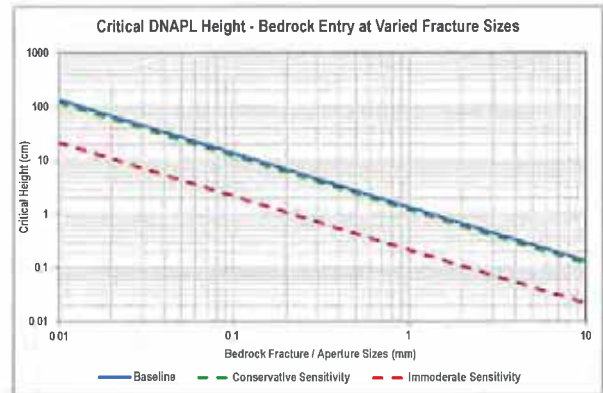
REFERENCES 1) COHEN, R.M. & J.W. MERCER, 1993, DNAPL SITE EVALUATION, ROBERT S. KERR ENVIRONMENTAL RESEARCH LABORATORY, US EPA OFFICE OF RESEARCH AND DEVELOPMENT, EPA/600/R-93/022.

RIV. 6/10/15

Unit	Mean Pore Radius (mm)	DNAPL Entry into Saturated		Stable DNAPL Pool Heights in Overburden			
		Critical Height (ft)	Critical Height (ft)	Stable Height (ft)	Stable Height (ft)	Stable Height (ft)	Stable Height (ft)
Fill	0.00542	55.33	1.82	--	--	--	--
Shallow Overburden	0.03968	7.56	0.25	34.36	1.13	--	--
Deep Overburden	0.01776	--	--	--	--	78.75	2.52
Using Min Mean Pore/Grain Size							
Fill	0.00487	77.77	2.42	--	--	--	--
Shallow Overburden	0.03772	--	--	35.14	1.19	--	--
Deep Overburden	0.01328	--	--	--	--	102.04	3.37
Using Max Mean Pore/Grain Size							
Fill	0.00698	44.26	1.45	--	--	--	--
Shallow Overburden	0.04143	--	--	32.74	1.07	--	--
Deep Overburden	0.01995	--	--	--	--	71.55	2.35
Shallow Conservative	0.03968	--	--	33.45	1.03	--	--
Shallow Immoderate	0.03968	--	--	5.57	0.18	--	--
Deep Conservative	0.01776	--	--	67.91	2.23	--	--
Deep Immoderate	0.01776	--	--	13.45	0.43	--	--

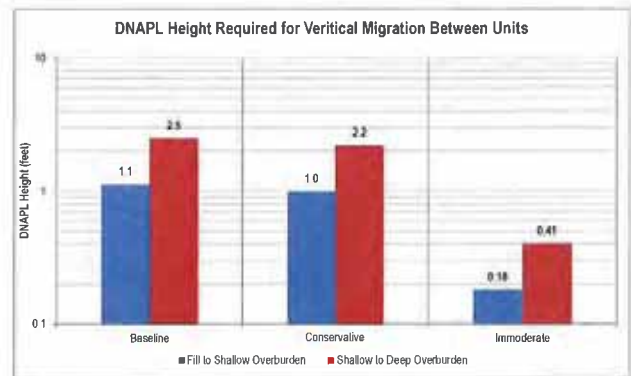
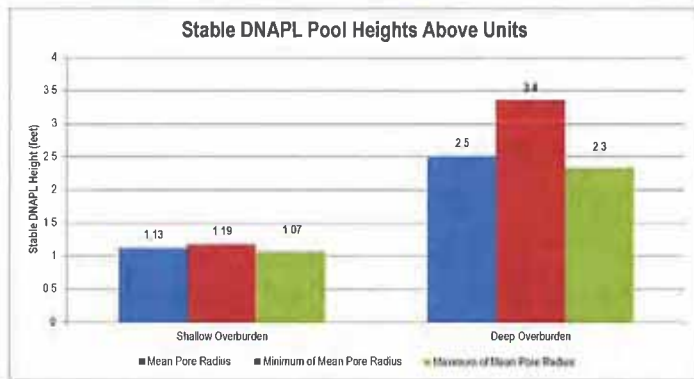
Unit	Aperture Size (mm)	DNAPL Entry into Bedrock - Saturated Zone		Conserv Height			
		Critical Height (ft)	Critical Height (ft)	Immod Height (ft)	Immod Height (ft)	Immod Height (ft)	
Shallow Bedrock	0.01000	836.30	4.47	120.62	3.95	22.12	0.73
Shallow Bedrock	0.10000	13.83	0.45	12.86	0.40	2.21	0.07
Shallow Bedrock	1.00000	1.38	0.04	1.21	0.04	0.22	0.0073
Shallow Bedrock	10.00000	0.14	0.004	0.12	0.00	0.02	0.0007

DNAPL Properties	Symbol	Units	Baseline DNAPL	Immoderate	Conservative
Contact Angle	ϕ	degrees	37.50	75.00	20.00
Density	ρ_s	g/cc	1.22	1.44	1.18
Density (water)	ρ_w	g/cc	1.00	1.015	1.0075
Interfacial Tension	σ	dyne/cm	15.00	5.00	25.00
Viscosity (oil)	μ	centipoise	27.80	28.02	30.58
Gravitational constant	g	cm/sec ²	900.005		



Upward Gradient Required to Prevent Vertical DNAPL Migration (neglecting capillary pressures)	Baseline	Immoderate	Conservative
ft/ft	0.225	0.416	0.171

Site-specific Vertical Gradients	Upward	Downward	Immoderate	Conservative
Op to Sh Overburden	0.0096	-0.0096		
Bx to Overburden	0.0042	-0.0042		
Within Overburden	25	times lower	48	20
Bx to Overburden	53	times lower	100	41



Unit	Mean Pore Radius (mm) of Lower Unit	DNAPL Entry into Shallow and Deep Overburden Materials					
		Critical Height (ft)	Critical Height (ft)	Conserv Ht (ft)	Conserv Height (ft)	Immod Height (ft)	Immod Height (ft)
Fill to Shallow Overburden	0.03968	34.36	1.13	30.40	1.00	5.57	0.18
Shallow to Deep Overburden	0.01776	76.75	2.52	67.91	2.23	12.45	0.41
Fill to Shallow Overburden	Equiv. Capillary Pressure, Pa	741	Equiv. Capillary Pressure, Pa	450	Equiv. Capillary Pressure, Pa	120	Equiv. Capillary Pressure, Pa
Shallow to Deep Overburden		1656		1465		268	

Project 2396

Job AERODUX

Project No. 2396

Sheet of

Description DNAPL RECOVERABILITY

Computed by JColl

Date 5-27-15

ASSESSMENT

Checked by RJV

Date 6/10/15

Reference

TASK EVALUATE RECOVERABILITY OF DNAPL FROM THE OVERBURDEN MATERIALS AT THE SITE.

APPROACH (1) EMPLOY EMPIRICAL EQUATIONS TO ESTIMATE DRAWDOWN IN RESPONSE TO PUMPING. REF. 1, 3

(2) ASSUME DNAPL DROPLET SIZE AS 50% OF RECOVERY WELL SLOT SIZE. REF. 4

ASSUMPTIONS (A) EMPLOY ESTABLISHED HYDROGEOLOGIC PROPERTIES IN EVALUATION.
 (B) EMPLOY ESTABLISHED BASELINE DNAPL PHYSICAL PROPERTIES IN EVALUATION.
 (C) EVALUATE SEPARATE-PHASE DNAPL RECOVERY.

RESULTS SEE PAGE 2 OF 3 FOR DRAWDOWN ESTIMATION PROCEDURE.

UNIT	MAXIMUM Q (gpm)	EST. DRAWDOWN (FT)
SH. OVBURDN	2.75	1.85
DP. OVBURDN	4.0	2.7

OKAY



* GROUNDWATER EXTRACTION WILL MOBILIZE DNAPL BODIES UP TO 1.5 FT AND 3.0 FT IN SIZE AT A DISTANCE OF 100-FT FROM RECOVERY WELL LOCATION, FOR THE SHALLOW AND DEEP OVERBURDEN, RESPECTIVELY.

PRELIMINARY RECOVERY WELL DESIGN

- EVALUATE POTENTIAL FOR GRAVITY SETTLING OF DNAPL W/IN RECOVERY WELL, EMPLOYING DESIGN PUMPING RATES (ABOVE) REF. 4
- CONSIDER IN-WELL UP-HOLE VELOCITIES FOR VARIED RECOVERY WELL CONFIGURATIONS.

PRELIMINARY (THEORETICAL) DESIGN REQUIREMENTS (PAGE 3 OF 3)

- WELL DIAMETER - 6-INCH
- SLOT SIZE - 50-SLOT
- PUMPING RATE - 3 GPM

OKAY

REFERENCES SEE PAGE 2 OF 3.

RTV 6/10/15

OKAY

Aquifer Parameters - Shallow Overburden

	Avg	Low (-10%)	High (+10%)
(k) Hydraulic Conductivity (ft/day) ²	39.69	35.7	43.7
(l) Horizontal Gradient (ft/ft)	0.0228	0.0205	0.0251
(b) Aquifer Saturated Thickness (ft)	10	9.00	11.0
(T) Transmissivity (gpd/ft)	2969.4	2672	3266.3



Sidegradient Capture Zone for Pumping Wells (After Todd, 1980)
 $y = Q / 2Kbi$

Downgradient Capture Zone for Pumping Wells (After Todd, 1980)
 $x = Q / 2piKbi$

(* by 192.5 to use gpm for Q)

Specific Capacity Empirical Equation (Ref Driscoll, 1986)
 $Q / s = T / 2000$

Transmissivity		
k (ft/day)	b (ft)	Calculated T (gpd/ft)
B Aquifer	39.69	10
via $T = k * b$		

Checks on Calculations

General Check = "s" cannot exceed 20% of b
Site-Specific Check = cannot exceed ~2 feet of drawdown

SUMMARY (using average values)		
Q (gpm)	s (ft)	Site-Specific Check
2	1.35	ok
2.75	1.85	ok
3	2.02	error
4	2.69	error
6	4.04	error
10	6.74	error

Trial & Error Average Values			
Q (gpm)	y (ft)	x (ft)	s (ft)
2	21	7	1.35
2.75	29	9	1.85
3	32	10	2.0
4	42	14	2.7
6	64	20	4.0
10	106	34	6.7

Note: These estimates are based on reported aquifer data including grain size and slug testing results and therefore should be verified by field testing. Further, these data are intended to provide an estimate of anticipated conditions

Aquifer Parameters - Deep Overburden

	Avg	Low (-10%)	High (+10%)
(k) Hydraulic Conductivity (ft/day) ²	126.38	113.7	139.0
(l) Horizontal Gradient (ft/ft)	0.0023	0.0021	0.0026
(b) Aquifer Saturated Thickness (ft)	15	13.50	16.5
(T) Transmissivity (gpd/ft)	14181.8	12764	15600.0



Sidegradient Capture Zone for Pumping Wells (After Todd, 1980)
 $y = Q / 2Kbi$

Downgradient Capture Zone for Pumping Wells (After Todd, 1980)
 $x = Q / 2piKbi$

(* by 192.5 to use gpm for Q)

Specific Capacity Empirical Equation (Ref Driscoll, 1986)
 $Q / s = T / 2000$

Transmissivity		
k (ft/day)	b (ft)	Calculated T (gpd/ft)
B Aquifer	126.38	15
via $T = k * b$		

Checks on Calculations

General Check = "s" cannot exceed 20% of b
Site-Specific Check = cannot exceed ~3 feet of drawdown

SUMMARY (using average values)		
Q (gpm)	s (ft)	Site-Specific Check
2	1.35	ok
3	2.02	ok
4	2.69	ok
5	3.27	error
8	5.99	error
10	6.74	error

Trial & Error Average Values			
Q (gpm)	y (ft)	x (ft)	s (ft)
2	21	7	1.3
3	32	10	2.0
4	42	14	2.7
5	53	17	3.4
8	85	27	5.4
10	106	34	6.7

Note: These estimates are based on reported aquifer data including grain size and slug testing results and therefore should be verified by field testing. Further, these data are intended to provide an estimate of anticipated conditions

References:

- (1) Driscoll, F.G., 1986, *Groundwater and Wells*, 2nd Ed., Johnson Filtration Systems, Inc., St Paul, MN, 1089 p
- (2) Site-Specific Slug Test Report - January 2015, prepared by AECOM
- (3) Todd, David K., 1980, *Groundwater Hydrology*, John Wiley & Sons, New York, 535 p
- (4) Coll, F. R. and K. Paschl, 2013, *Creosole DNAPL Recovery Well Design for Mass Removal*, Remediation, Spring 2013, pp 19-30

Project 2396

RJV 6/10/15
 PROCEURE ✓

Preliminary Design

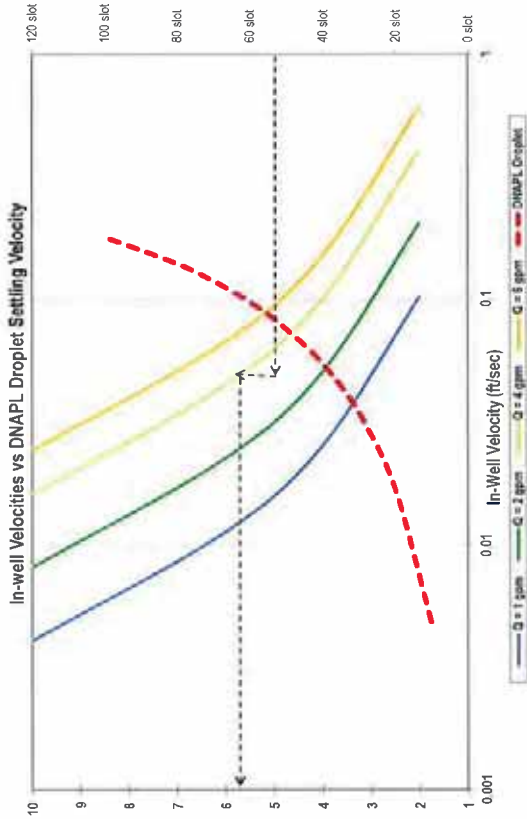
Screen slot size	50 mil
DNAPL density	1.228 g/cc
Drop size (assume at 50% of slot size)	0.025 inches
Design groundwater pumping rate	3.0 gpm
Calculated drag coefficient	3.2016
Calculated Reynolds number	11,4400
DNAPL droplet velocity	0.077 ft/sec

0.077 ft/sec
 (1.228)

Casing Designation	Inside Diameter (in)	Area (sq feet)	In-Well Uptake Velocity (ft/sec)	Expected Results
Johnson Vee Wire / Irrigator or Similar	2.00	0.02	0.3065	Increase Uptake
Johnson Vee Wire / Irrigator or Similar	4.00	0.09	0.0766	Marginal
Johnson Vee Wire / Irrigator or Similar	6.00	0.20	0.0341	Acceptable
Johnson Vee Wire / Irrigator or Similar	10.00	0.55	0.0123	Acceptable

Notes: DNAPL droplet size estimated at 50% of slot size.
 Site-specific DNAPL Baseline Density of 1.22 g/cc employed

Reference: Coll. F. R. and K. Paschi, 2013. Creosote DNAPL Recovery Well Design for Mass Removal, Remediation, Spring 2013, pp 19-30.



Well Diameter	Update Velocities vs. Various Pumping Rates	DNAPL DROPLET VELOCITIES
2.00	0.0000	0.0000
4.00	0.0000	0.0000
6.00	0.0000	0.0000
10.00	0.0000	0.0000
2.00	0.0000	0.0000
4.00	0.0000	0.0000
6.00	0.0000	0.0000
10.00	0.0000	0.0000
2.00	0.0000	0.0000
4.00	0.0000	0.0000
6.00	0.0000	0.0000
10.00	0.0000	0.0000
2.00	0.0000	0.0000
4.00	0.0000	0.0000
6.00	0.0000	0.0000
10.00	0.0000	0.0000
2.00	0.0000	0.0000
4.00	0.0000	0.0000
6.00	0.0000	0.0000
10.00	0.0000	0.0000

Project 2396

DNAPL Mobility Figures

Figure E-1. Stable DNAPL Pool Heights Above Units.

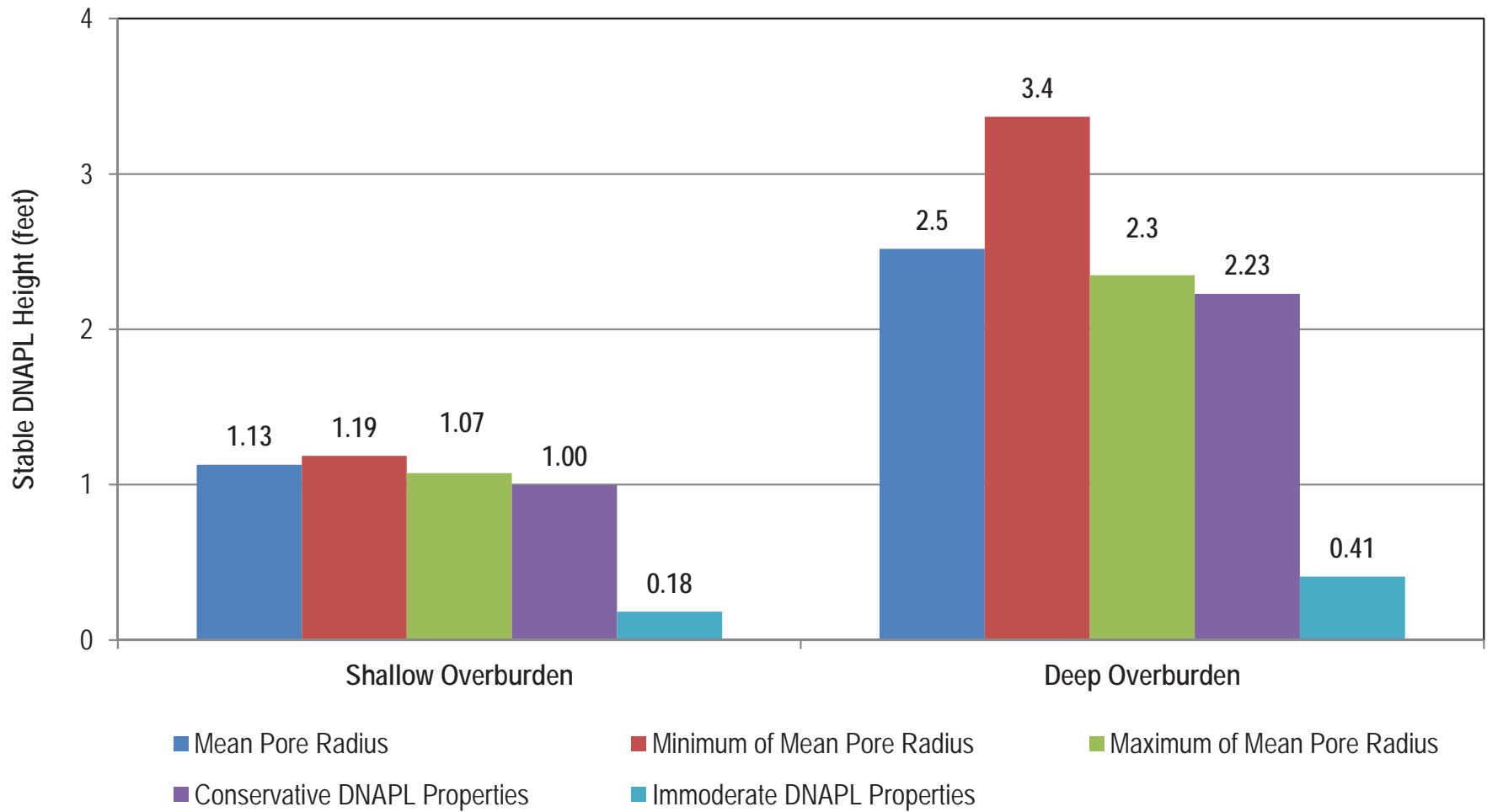


Figure E-2. Critical DNAPL Height Required to Enter Bedrock Aperture Opening.

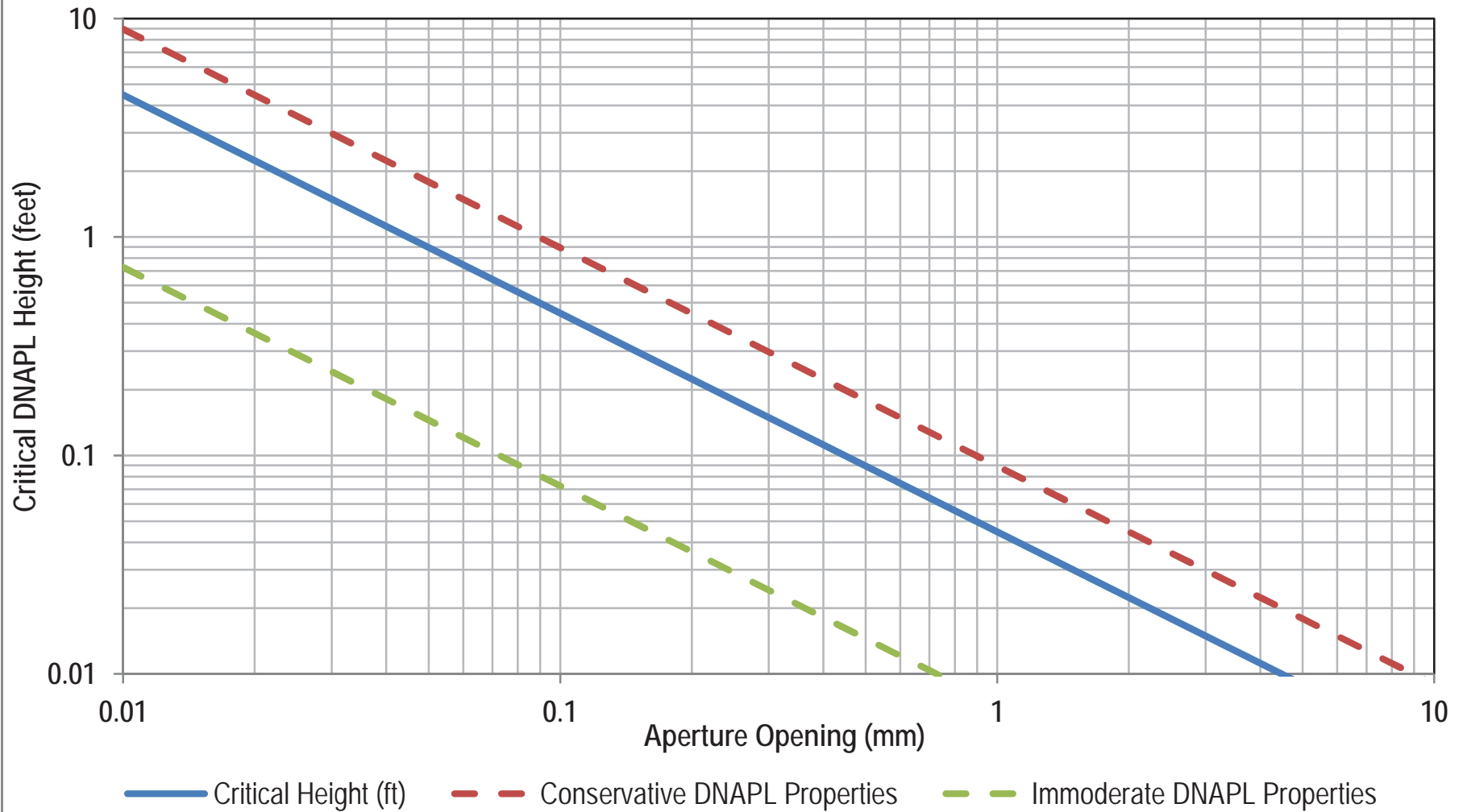
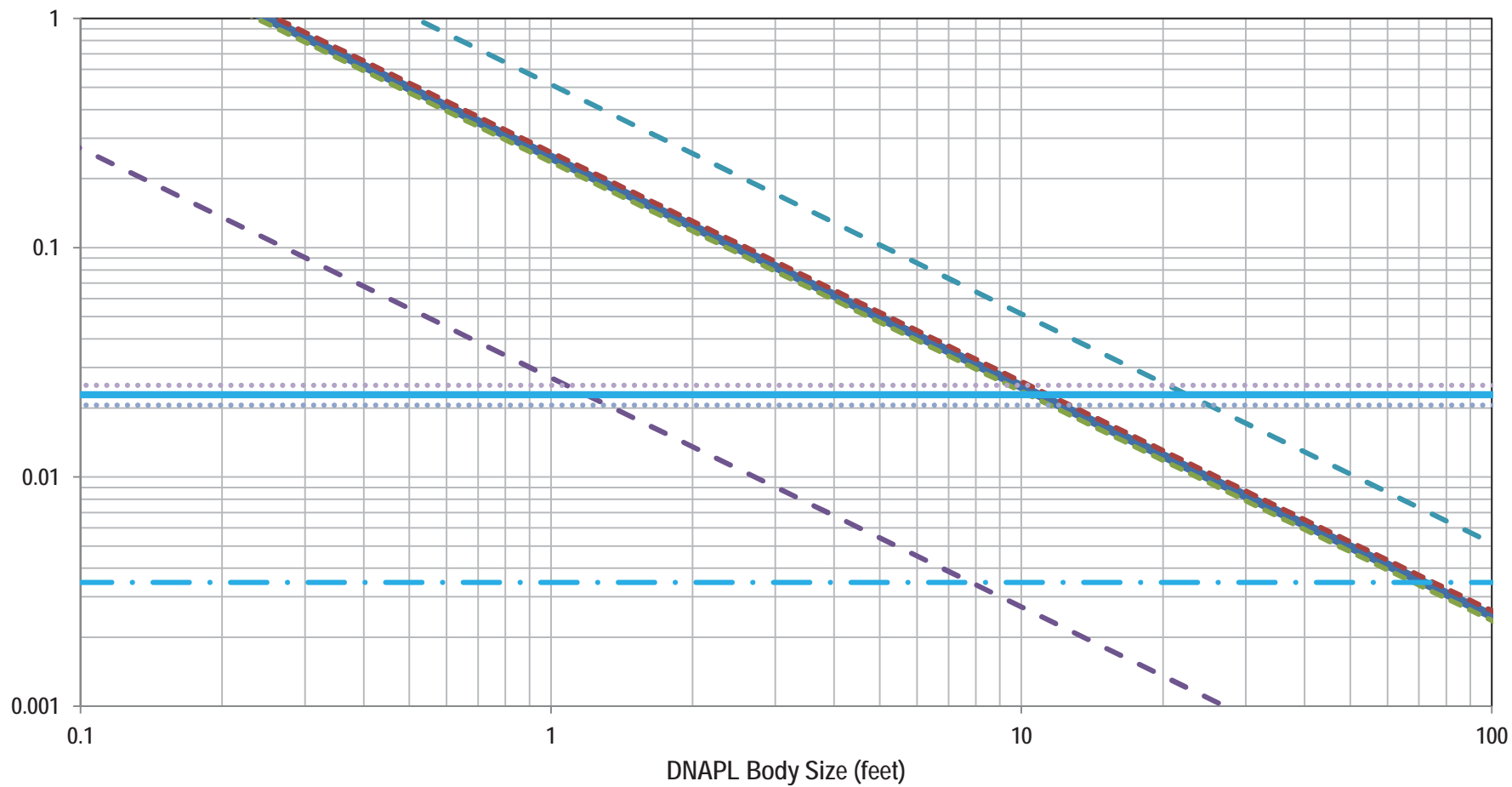
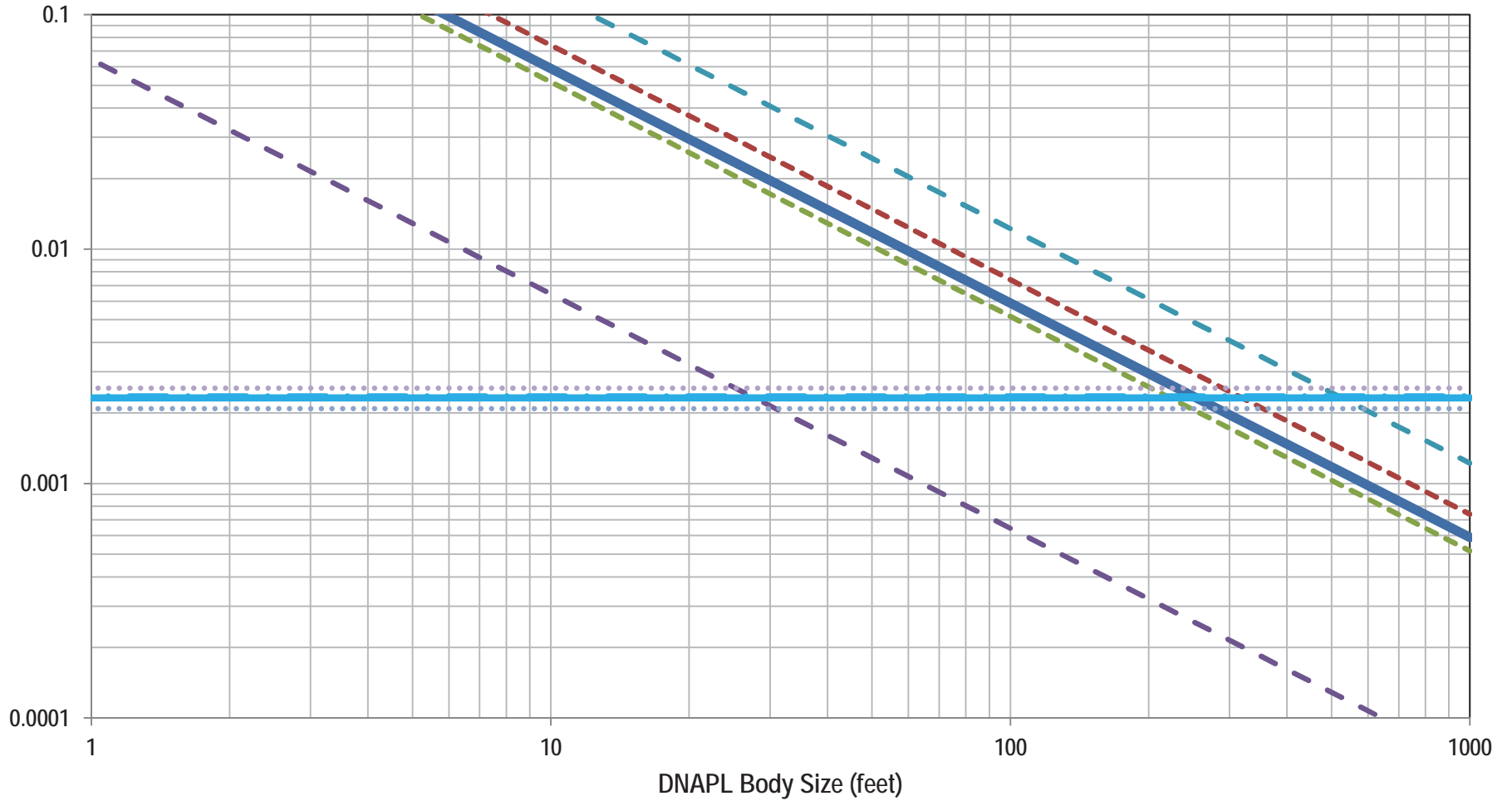


Figure E-3. Required Gradient to Initiate DNAPL Migration - Shallow Overburden.



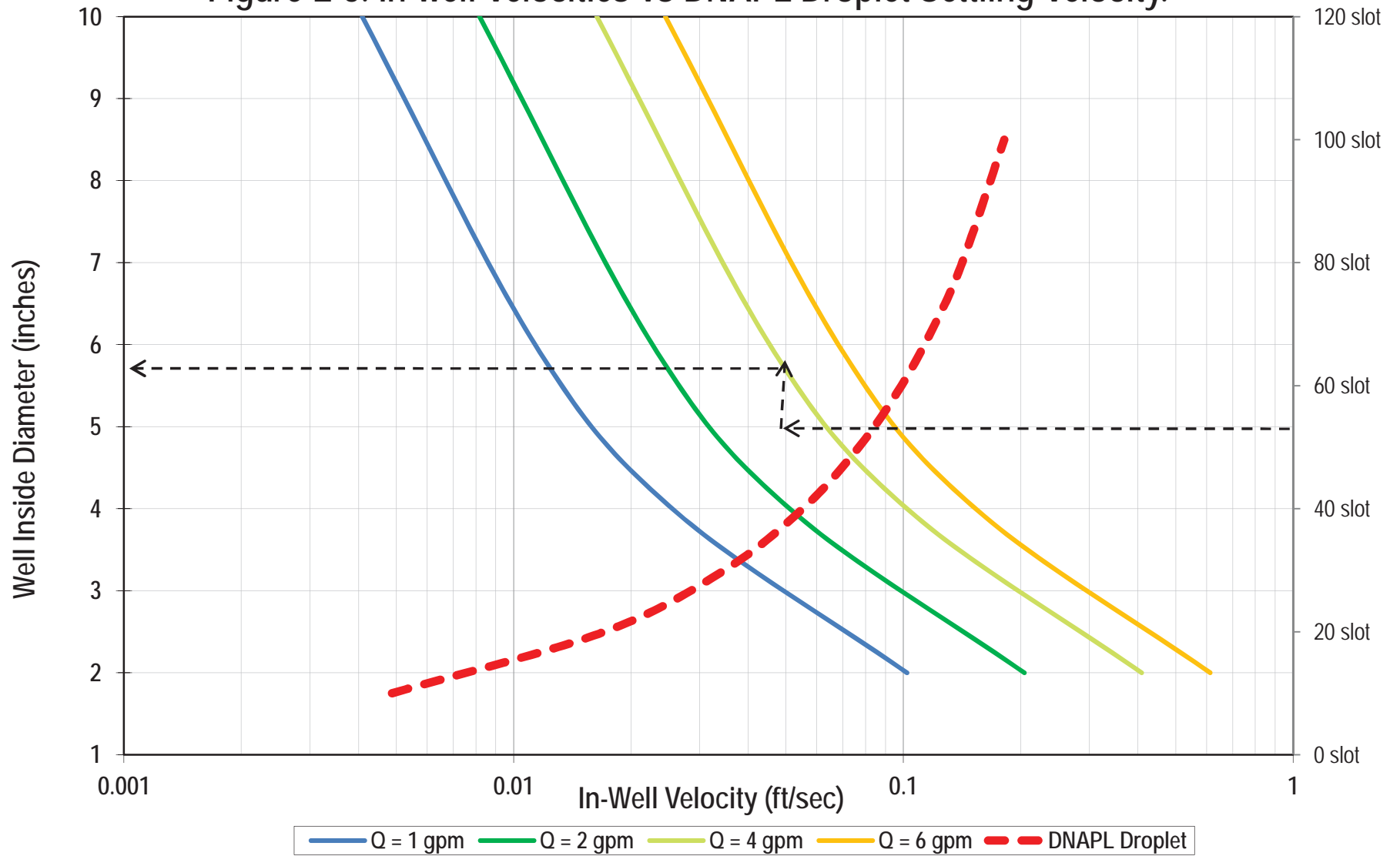
- Critical Gradient
- - Immoderate DNAPL Properties
- Min Gradient
- - CR-Min Pore Size
- - Conservative DNAPL Properties
- Max Gradient
- - CR-Max Pore Size
- Mean Gradient
- · - Reverse Gradient

Figure E-4. Required Gradient to Initiate DNAPL Migration - Deep Overburden.



- Critical Gradient
- Immoderate DNAPL Properties
- CR-Min Pore Size
- Conservative DNAPL Properties
- CR-Max Pore Size
- Mean Gradient
- Min Gradient
- Max Gradient
- Reverse Gradient

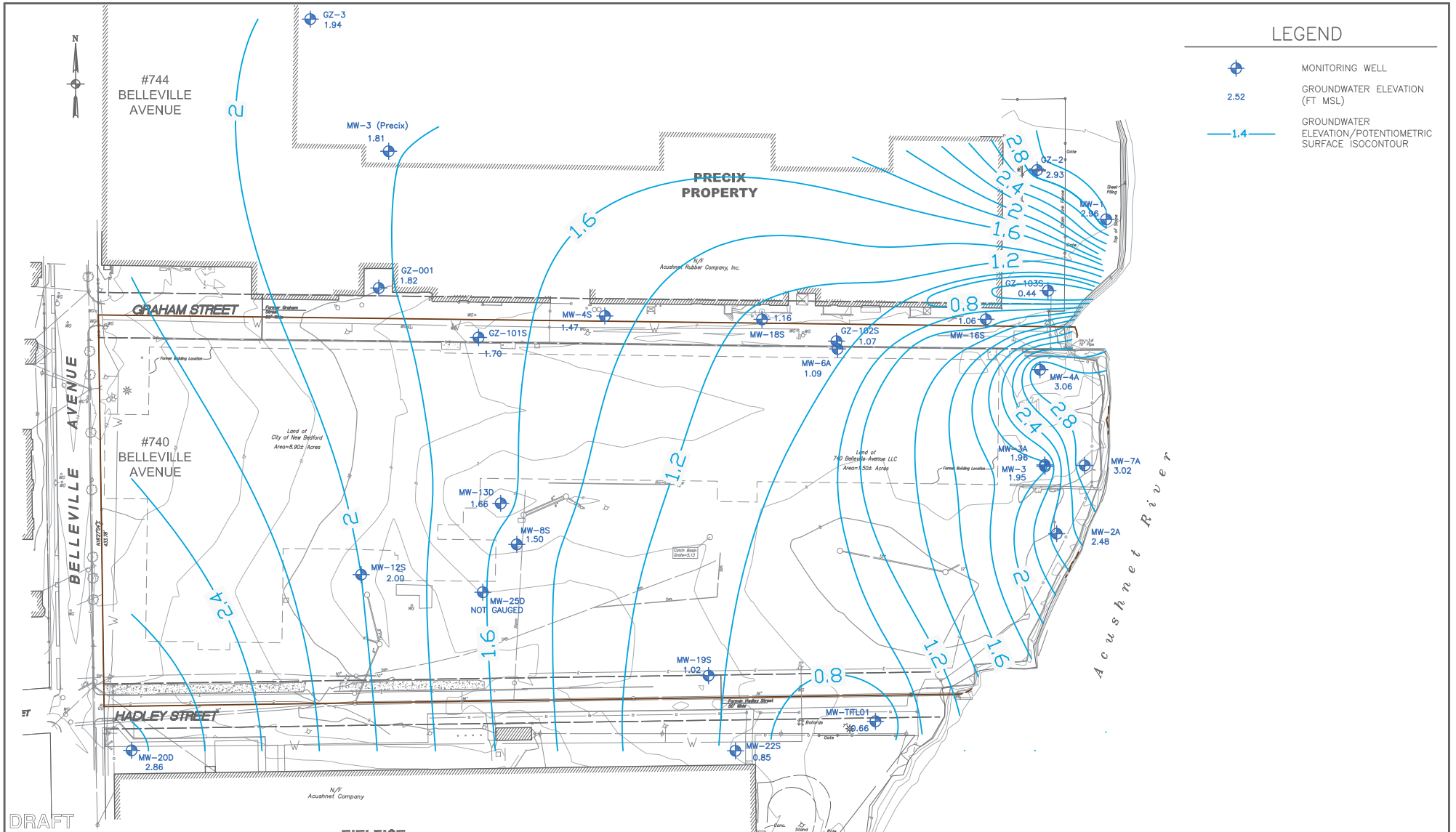
Figure E-5. In-well Velocities vs DNAPL Droplet Settling Velocity.



APPENDIX F

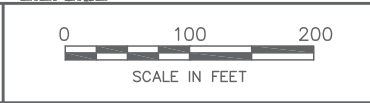
May 2015 Groundwater Potentiometric Surface Contour Maps

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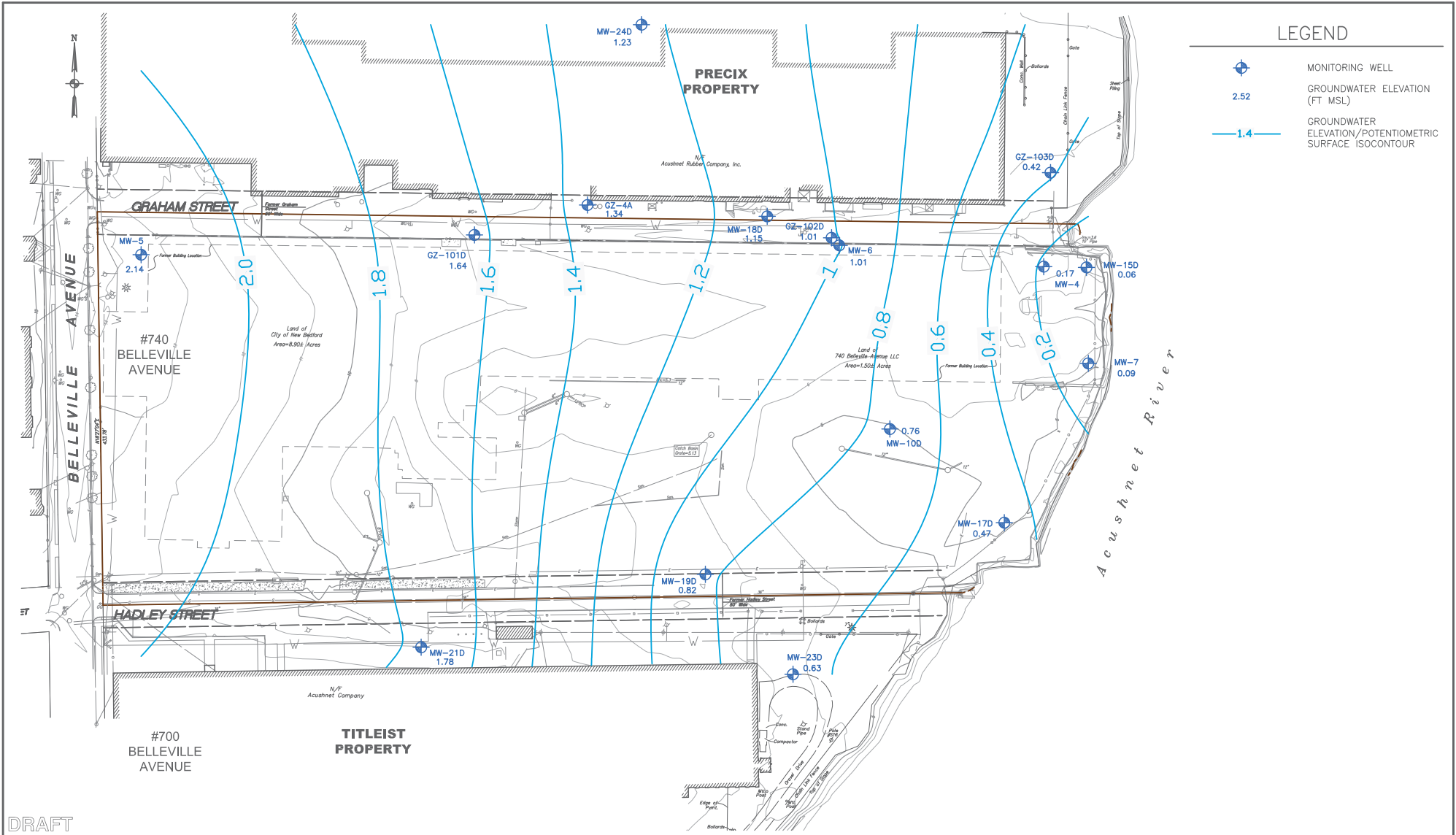


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DESIGN:	DB
APPROVED:	MW
DRAWN:	FS
SCALE:	AS SHOWN
DATE:	JUNE 2015
FILE NO:	AVX - S1 GW Flow Maps - 05-28-2015




CLIENT:	AVX CORPORATION
PROJECT:	740 BELLEVILLE AVENUE NEW BEDFORD, MA

TITLE:	GROUNDWATER ELEVATION CONTOUR MAP SHALLOW OVERBURDEN MAY 28, 2015
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FIGURE NO.:	G-1
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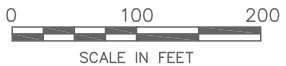
LEGEND

-  MONITORING WELL
-  2.52 GROUNDWATER ELEVATION (FT MSL)
-  1.4 GROUNDWATER ELEVATION/POTENTIOMETRIC SURFACE ISOCONTOUR

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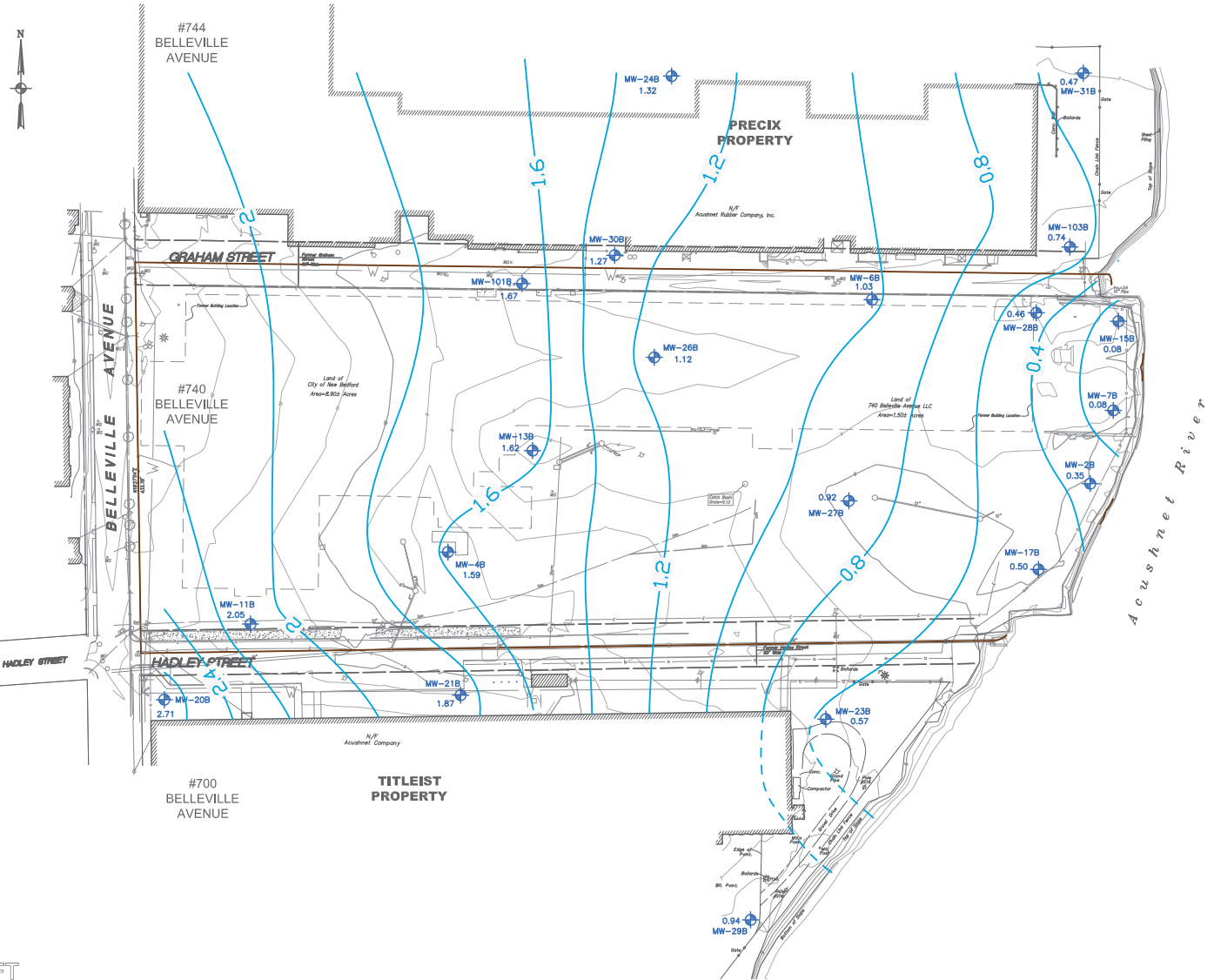
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APPROVED:	MW
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CLIENT:	AVX CORPORATION
PROJECT:	740 BELLEVILLE AVENUE NEW BEDFORD, MA




TITLE:	GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR MAP DEEP OVERBURDEN MAY 28, 2015
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FIGURE NO.:	G-2
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P:\cadd\2008\AVX\GWS\Supplemental Investigation Figures\AVX - S1 GW Flow Maps - 05-28-2015.dwg, Gw Flow - BR, 6/10/2015 11:47:20 AM



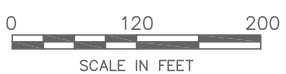
LEGEND

-  MONITORING WELL
-  2.52 GROUNDWATER ELEVATION (FT MSL)
-  1.4 GROUNDWATER ELEVATION/POTENTIOMETRIC SURFACE ISOCONTOUR

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PROJECT NO:	60422003
DESIGN:	DB
SCALE:	AS SHOWN
APPROVED:	MW
DATE:	JUNE 2015
DRAWN:	FS
FILE NO:	AVX - S1 GW Flow Maps - 05-28-2015

CLIENT:	AVX CORPORATION
PROJECT:	740 BELLEVILLE AVENUE NEW BEDFORD, MA

TITLE:	GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR MAP BEDROCK MAY 28, 2015
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FIGURE NO.:	G-3
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APPENDIX G

Spring 2015 DRAFT Boring Logs

Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

Log of Boring B15GS

Sheet 1 of 2

Date(s) Drilled	4/21/2015	Logged By	J. Harshman	Checked By	
Drilling Method	Geoprobe	Drill Bit Size/Type	NA	Total Depth of Borehole	32.0 feet
Drill Rig Type	6620 DT	Drilling Contractor	Geosearch	Surface Elevation	
Groundwater Level During Drilling	3 ft bgs	Sampling Method(s)	Macrocore	Hammer Data	Direct Push
Borehole Backfill	Grout, cold patch asphalt at surface	Location	Near location of MW-15, MIP-48, and UV-34		

Elevation feet	Depth, feet	SAMPLES					MATERIAL DESCRIPTION	Graphic Log	Lithology USCS Code	REMARKS AND OTHER TESTS
		Type	Number	PID (ppm)	Headspace PID (ppm)	Recovery (in)				
0				0.0			Asphalt at Surface			
				0.0			(0.2-2') Light brown fine to medium SAND, little fine to medium gravel (loose to med dense) (dry) No impact observed		FILL	
2				0.0	0.0	26	(2-5') Dark brown to black fine to medium SAND, some fine to medium gravel, with metal shavings, coal like material, and brick fragments [FILL] (wet at 3') No impact observed		FILL	
4				0.0						
6		B15GS (4-7)		0.0			(5-7') Fine to coarse SAND, with industrial materials (wet) [FILL] No impact observed		FILL	
8				0.0	6.6	24	(7-9') Dark gray to black very fine SILTY GYTTJA, some marine shells (damp) No impact observed		SM	
10				0.0			(9-10') PEAT, some fine to medium sand and organics (damp to wet) No impact observed		PT	
12				0.0			(10-15') Gray to light brown fine to coarse SAND, some fine to coarse gravel at 14 ft bgs (med dense) (wet) No impact observed		SW	
14				0.0	4.3	40				
16		B15GS (15-17)		85	450		(15-20') Gray fine to very coarse SAND, some fine to coarse gravel (med dense) (wet) Naphthalene odor at 15-17 ft bgs Light brown oily staining at 15-19 ft bgs		SW	
18				60						
				3.9		54				
				1.4						
20				0.0						

Report: AVX MACROCORE; File: AVX BORING LOGS.GPJ; 5/20/2015 B15GS



Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

Log of Boring B15GS

Sheet 2 of 2

Elevation feet	Depth, feet	SAMPLES					MATERIAL DESCRIPTION	Graphic Log	Lithology USCS Code	REMARKS AND OTHER TESTS
		Type	Number	PID (ppm)	Headspace PID (ppm)	Recovery (in)				
20				38			(20-25') Gray fine to medium SAND, little coarse sand and fine to coarse gravel (loose to med dense) (wet) Brown DNAPL staining throughout Blebs present with strong odor		SW	
				220						
22				211	40					
		B15GS (22-24)		233	2000					
24				204						
				5000	12000	(25-30') Gray fine to very coarse SAND and GRAVEL, silt lens at 28.5 ft bgs (med dense to very dense) (wet) Brown DNAPL staining 25-28 very strong odor		SW		
26				150						
		B15GS (25-29)		50	54					
28				70						
				3.0						
30				70	20	(30-32') Gray fine to coarse SAND, some fine to medium gravel [WEATHERED BEDROCK] fragments at 32 ft bgs (med dense to dense) (wet) Brown DNAPL staining		SW		
		B15GS (30-32)		100	400					
32										
						Bottom of Exploration at 32 ft bgs				
	34									
	36									
	38									
	40									
	42									

Report: AVX MACROCORE; File: AVX BORING LOGS.GPJ; 5/20/2015 B15GS

Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-29B
 Sheet 1 of 3

Date(s) Drilled and Installed 4/16/15 - 4/27/15	Water Surface Elevation NA	Well Casing or Riser 4-in permanent steel casing 0-37 ft bgs
Logged By (URS) J. Harshman	Surface Elevation NA	Screen Open bedrock hole 40-60.25 ft bgs
Drilling Contractor Geosearch	Datum	Checked By
Total Depth of Borehole 60.3 ft	Easting	Notes: Overburden Sampled by Geoprobe
Groundwater Level 3 ft bgs	Annular Fill: Open bedrock borehole 37-60.25 ft bgs	Location: Titleist
Diameter of Borehole 8.5 in		Sampler Type: Macrocore
Drilling Method Drive & Wash/ Casing/ Roller Bit/ Air Rotary w/ Air Hammer		Hammer Data: Geoprobe Direct Push
		Well Type: Protective stickup casing open bedrock well

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
0						1.6		SW	Asphalt at Surface		4" permanent casing 3' above ground surface w/ protective stickup casing to 4' above ground surface	
1						3.9		SW	(0-1') Dark brown to brown very fine to fine SILTY SAND, trace coarse sand, trace fine to medium gravel (med dense) (dry) No impact observed			
2						8.0		SW	(1-2') Brown fine to coarse SILTY SAND, little fine to medium gravel, trace coarse gravel (med dense) (dry) No impact observed			
3								ROCK	(2-3') Brown fine to medium SILTY SAND, little coarse sand and fine to coarse gravel (loose to med dense) (Moist to wet) No impact observed			
4									(3-10') BOULDERS and ROCK FRAGMENTS [FILL] No impact observed			
5			21									
6												
7												
8						8.0						
9												
10			45					SW	(10-13') Gray to light brown fine to coarse SAND and GRAVEL (loose to med dense) (wet) No impact observed		4-in Permanent Steel Casing 1 to 37 ft bgs	
11						0.0						
12						0.0						
13						0.0	0.4	SW	(13-15') Gray to light brown fine to coarse SAND, little fine to medium gravel (loose to med dense) (wet) No impact observed			
14						0.0						
15			50			0.0		SW	(15-20') Gray fine to medium SAND, some coarse sand, little fine gravel (loose to med dense) (wet) No impact observed			
16						0.0						
17						0.0						
18						0.0						
19						0.0						
20						0.0						

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-29B



Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-29B
 Sheet 2 of 3

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
20			50					SW	(20-24') Gray fine to coarse SAND, trace fine gravel (loose to med dense) (wet) No impact observed			
21						0.0						
22						0.0						
23						0.0	0.1					
24						0.0		SW	(24-25') Brown fine to coarse SAND and GRAVEL, trace silt (med dense) (wet) No impact observed			
25			36			0.0		GW	(25-28') Brown to light brown fine to coarse SAND and GRAVEL, trace [WEATHERED BEDROCK] fragments in tip (loose to med dense) (wet) No impact observed			
26						0.0						
27						0.0	0.2					
28						0.0					Bedrock at 28 ft bgs	
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-29B

No Sampling

Air Hammer Advancement

Open Borehole 37 to 60.25 ft bgs drilled via air hammer



Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-29B
 Sheet 3 of 3

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
47												
48												
49												
50										Air Hammer Advancement		
51												
52												
53												
54										No Sampling		
55												
56												
57												
58												
59												
60												
61										Bottom of Exploration at 60.25		
62												
63												
64												
65												
66												
67												
68												
69												
70												
71												
72												
73												

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-29B



Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-30B
 Sheet 1 of 3

Date(s) Drilled and Installed 4/16/15 - 4/28/15	Water Surface Elevation NA	Well Casing or Riser 4-in permanent steel casing 0-33 ft bgs
Logged By (URS) J. Harshman	Surface Elevation NA	Screen Open bedrock hole 33-53 ft bgs
Drilling Contractor Geosearch	Datum	Checked By
Total Depth of Borehole 53.0 ft	Easting	Notes: Overburden Sampled by Geoprobe
Groundwater Level 5 ft bgs	Annular Fill: Open bedrock borehole 33-53 ft bgs	Location: Precix
Diameter of Borehole 8.5 in		Sampler Type: Macrocore
Drilling Method Drive & Wash/ Casing/ Roller Bit/ Air Rotary w/ Air Hammer		Hammer Data: Geoprobe Direct Push
		Well Type: Flush-mount open bedrock well

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
0									(0-0.5') 2" asphalt at surface, then 2" gravel, then 2" concrete			
1								SW	(0.5-1') Dark brown to orange brown fine to coarse SAND and GRAVEL (loose) (dry)			
2	MW-30B (1-3)							SW	No impact observed			
3								SW	(1-2') Orange brown fine to medium SAND, little fine to medium gravel (loose) (dry)			
4								SW	No impact observed			
5			15					SW	(2-3') Brown fine to medium SAND, trace silt, little fine to medium gravel (loose) (dry)			
6								SW	No impact observed			
7								SW	(3-4') Brown fine to medium SAND, trace coarse sand and trace fine to medium gravel (loose) (dry)			
8								SW	No impact observed			
9								SW	(4-4.5') Brown fine to medium SAND, trace fine gravel (loose) (dry)			
10	MW-30B (8-10)		56					SW	(4.5-5') Light brown very fine to fine SAND, trace silt (loose) (wet at 5')			
11								SW	No impact observed			
12								SW	(5-10') Light brown to gray very fine to fine SAND, trace silt (med dense) (wet)			
13								SW	No impact observed			
14	MW-30B (13-15)							SW	(10-15') Gray to light brown very fine to fine SAND, little medium sand becoming very fine silty sand at 14.5 ft bgs. (loose to med dense) (wet)		4-in Permanent Steel Casing 1 to 33 ft bgs	
15								SW	No impact observed			
16			50					SW	(15-17') Orange brown very fine to fine SAND (loose) (wet)			
17								SW	No impact observed			
18								SW	(17-20') Brown fine to coarse SAND and GRAVEL, trace silt (med dense) (wet)			
19	MW-30B (18-20)							SW	No impact observed			
20								SW				

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-30B



Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-30B
 Sheet 2 of 3

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
20			40					SW	(20-25') Light brown to gray fine SAND, transitioning to fine to coarse SAND with little fine to coarse gravel and trace silt, [WEATHERED BEDROCK] fragments at tip (med dense) (wet) No impact observed			
21						0.6						
22						0.8				BEDROCK at 25 ft bgs		
23						0.7	8.2					
24	MW-30B (23-25)					0.0						
25						0.5						
26												
27												
28												
29												
30												
31												
32												
33											Open Borehole 33 to 53 ft bgs	
34										No Sampling		
35												
36										Air Hammer Advancement		
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-30B



Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-30B
 Sheet 3 of 3

Depth, feet	SAMPLES							Graphic Log Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)				
47								No Sampling			
48											
49											
50											
51											
52											
53											
54									Bottom of Exploration at 53 ft bgs		
55											
56											
57											
58											
59											
60											
61											
62											
63											
64											
65											
66											
67											
68											
69											
70											
71											
72											
73											

Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-31B
 Sheet 1 of 3

Date(s) Drilled and Installed 4/16/15 - 4/28/15	Water Surface Elevation NA	Well Casing or Riser 4-in permanent steel casing 0-39.5 ft bgs
Logged By (URS) J. Harshman	Surface Elevation NA	Screen Open bedrock hole 39.5-60.25 ft bgs
Drilling Contractor Geosearch	Datum	Checked By
Total Depth of Borehole 60.3 ft	Easting	Notes: Overburden Sampled by Geoprobe
Groundwater Level 4 ft bgs	Annular Fill: Open bedrock borehole 39.5-60.25 ft bgs	Location: Precix
Diameter of Borehole 8.5 in		Sampler Type: Macrocore
Drilling Method Drive & Wash/ Casing/ Roller Bit/ Air Rotary w/ Air Hammer		Hammer Data: Geoprobe Direct Push
		Well Type: Flush-mount open bedrock well

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
0						4.0		SW	Asphalt at Surface			
1						4.8		SW	(0-1') Brown fine to medium SAND, little fine to medium gravel, trace coarse gravel, trace coarse sand (loose) (dry) No impact observed			Cemented flushmount road box 0 to 1 ft bgs
2						1.6		SW	(1-2') Brown fine to medium SAND, little fine to medium gravel, trace coarse sand (loose) (dry) No impact observed			
3						3.3		SW	(2-3') Brown fine to medium SAND, trace to little fine to medium gravel (loose to med dense) (dry) No impact observed			
4						4.2		SW	(3-4') Brown to dark brown fine to coarse SILTY SAND, little fine to medium gravel (loose to med dense) (damp to wet at 4') No impact observed			
5			8					SM	(4-5') Dark gray fine to medium SILTY SAND, little coarse sand and fine to medium gravel (loose to med dense) (wet) No impact observed			
6						1.5			(5-10') Dark gray very fine to fine SILTY SAND, trace fine to medium gravel, trace marine shells (loose) (wet) No impact observed			
7												
8						0.3	8.0					
9	MW-31B (8-10)											
10			44					SM	(10-12') Dark brown fine to medium SILTY SAND, little coarse sand, trace fine to medium gravel, trace marine shells (loose) (wet) No impact observed			4-in Permanent Steel Casing 1 to 39.5 ft bgs
11						0.0						
12						0.0		SM	(12-14') Dark gray CLAYEY SILT (damp) No impact observed			
13						0.1	0.0					
14	MW-31B (13-15)							SW	(14-15') Light brown fine to coarse SAND and GRAVEL (loose) (wet) No impact observed			
15			50					SW	(15-19') Gray to light brown fine to coarse SAND, little to some fine to coarse gravel (loose) (wet) No impact observed			
16						0.0						
17						0.0						
18						0.0	1.8					
19	MW-31B (18-20)							SW	(19-20') Light brown fine to medium SAND, trace silt, little fine gravel (med dense to dense) (moist to wet)			
20						0.0						

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-31B



Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-31B
 Sheet 2 of 3

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
20			54					SW	No impact observed			
21						0.0			(20-25') Light brown fine to coarse SAND and GRAVEL, some fine to coarse gravel, trace silt (loose to med dense) (wet)			
22						0.0			No impact observed			
23						0.0	8.2					
24	MW-31B (23-25)					0.0						
25			50			0.0		SW	(25-30') Light brown fine to coarse SAND and GRAVEL (loose) (wet)			
26						0.0			No impact observed			
27						0.0						
28						0.0	2.3					
29	MW-31B (28-30)					0.0						
30			30			0.0		SW	(30-33') Light brown fine to coarse SAND and GRAVEL, little silt (loose) (wet)			
31						0.0			No impact observed			
32	MW-31B (31-33)					0.8	1.2					
33						0.2			Bedrock at ~33' bgs			
34												
35												
36												
37												
38												
39												
40									No Sampling		Open Borehole 39.5 to 60.25 ft bgs	
41												
42												
43									Air Hammer Advancement			
44												
45												
46												

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-31B



Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-31B
 Sheet 3 of 3

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
47												
48												
49												
50												
51												
52												
53										No Sampling		
54												
55												
56										Air Hammer Advancement		
57												
58												
59												
60												
61										Bottom of Exploration at 60.25 ft bgs		
62												
63												
64												
65												
66												
67												
68												
69												
70												
71												
72												
73												

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-31B



Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-32B
 Sheet 1 of 4

Date(s) Drilled and Installed	4/22/15 - 5/1/15	Water Surface Elevation	NA	Well Casing or Riser	4-in permanent steel casing 0-45 ft bgs
Logged By (URS)	J. Harshman	Surface Elevation	NA	Screen	Open bedrock hole 45-185 ft bgs
Drilling Contractor	Geosearch	Datum		Checked By	
Total Depth of Borehole	185.0 ft	Easting	Northing	Notes:	Location: Near MW-17 cluster in the SE area of Aerocox property
Groundwater Level	NE	Annular Fill:		Sampler Type:	No Sampling of Overburden
Diameter of Borehole	8.5 in	Open bedrock borehole 45-185 ft bgs		Hammer Data:	
Drilling Method	Drive & Wash/Casing/Roller Bit/Air Rotary			Well Type:	Flush-mount open bedrock well

Depth, feet	SAMPLES										Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)								
0													No sampling of overburden during boring. For descriptions of overburden in the area of MW-32B, see logs for MW-17D and MW-17B.	Cemented flushmount road box 0 to 1 ft bgs	
5															
10														4-in Permanent Steel Casing 1 to 45 ft bgs	
15															
20															
25															
30															
35															
37											BR	BEDROCK encountered at 37 ft bgs			
40															
45															Open Borehole 45 to 185 ft bgs Packer Test at 45-65'
50															

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-32B

Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-32B
 Sheet 2 of 4

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
50												
55												
60												
65												
70												
75												
80												
85												
90												
95												
100												
105												
110												
115												

Air Hammer
Advancement

Packer Test at
65-85'

Packer Test at
85-105'

Packer Test at
105-125'

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-32B



Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-32B
 Sheet 3 of 4

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
120												
125												Packer Test at 125-145'
130												
135												
140												
145												Packer Test at 145-165'
150												
155												
160												
165												Packer Test at 165-185'
170												
175												
180												

Air Hammer
Advancement

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-32B



Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-32B
 Sheet 4 of 4

Depth, feet	SAMPLES								Graphic Log Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
185									Bottom of Exploration at 185 ft bgs			
190												
195												
200												
205												
210												
215												
220												
225												
230												
235												
240												
245												
250												

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-32B



Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-33B
 Sheet 1 of 5

Date(s) Drilled and Installed	4/23/15 - 5/14/15	Water Surface Elevation	NA	Well Casing or Riser	4-in permanent steel casing 0-32 ft bgs
Logged By (URS)	J. Harshman	Surface Elevation	NA	Screen	Open bedrock hole 32-292 ft bgs
Drilling Contractor	Geosearch	Datum		Checked By	
Total Depth of Borehole	292.0 ft	Easting		Northing	
Groundwater Level	NE	Annular Fill:		Notes:	Location: Near MW-26B
Diameter of Borehole	8.5 in	Open bedrock borehole 32-292 ft bgs		Sampler Type:	No Sampling of Overburden
Drilling Method	Drive & Wash/Casing/Roller Bit/Air Rotary			Hammer Data:	
				Well Type:	Flush-mount open bedrock well

Depth, feet	SAMPLES								Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)						
0											No sampling of overburden during boring. For descriptions of overburden in the area of MW-33B, see logs for MW-26B.	Cemented flushmount road box 0 to 1 ft bgs	
5													
10													
15													
20													
25									BR	BEDROCK encountered at 24.2 ft bgs			
30													
35													
40													
45													
50													

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-33B

Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-33B
 Sheet 2 of 5

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
50												
55												Packer test at 52-72'
60												
65												
70												
75												Packer test at 72-92'
80												
85												
90												Packer test at 92-112'
95												
100												
105												
110												
115												Packer test at 112-132'

Air Hammer
 Advancement

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-33B



Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-33B
 Sheet 3 of 5

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
120												
125												
130												
135												Packer test at 132-152'
140												
145												
150												
155												Packer test at 152-172'
160												
165												
170												
175												
180												Packer test at 172-192'

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-33B



Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-33B
 Sheet 4 of 5

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
185												
190												
195												
200										Air Hammer Advancement		
205												
210												
215												Packer test at 192-212'
220												
225												
230												
235												
240												
245												
250												Packer test at 212-232'
												Packer test at 232-252'

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-33B



Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-33B
 Sheet 5 of 5

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
250												
255												Packer test at 252-272'
260										Air Hammer Advancement		
265												
270												
275												Packer test at 272-292'
280												
285												
290												
295										Bottom of Exploration at 292 ft bgs		
300												
305												
310												
315												

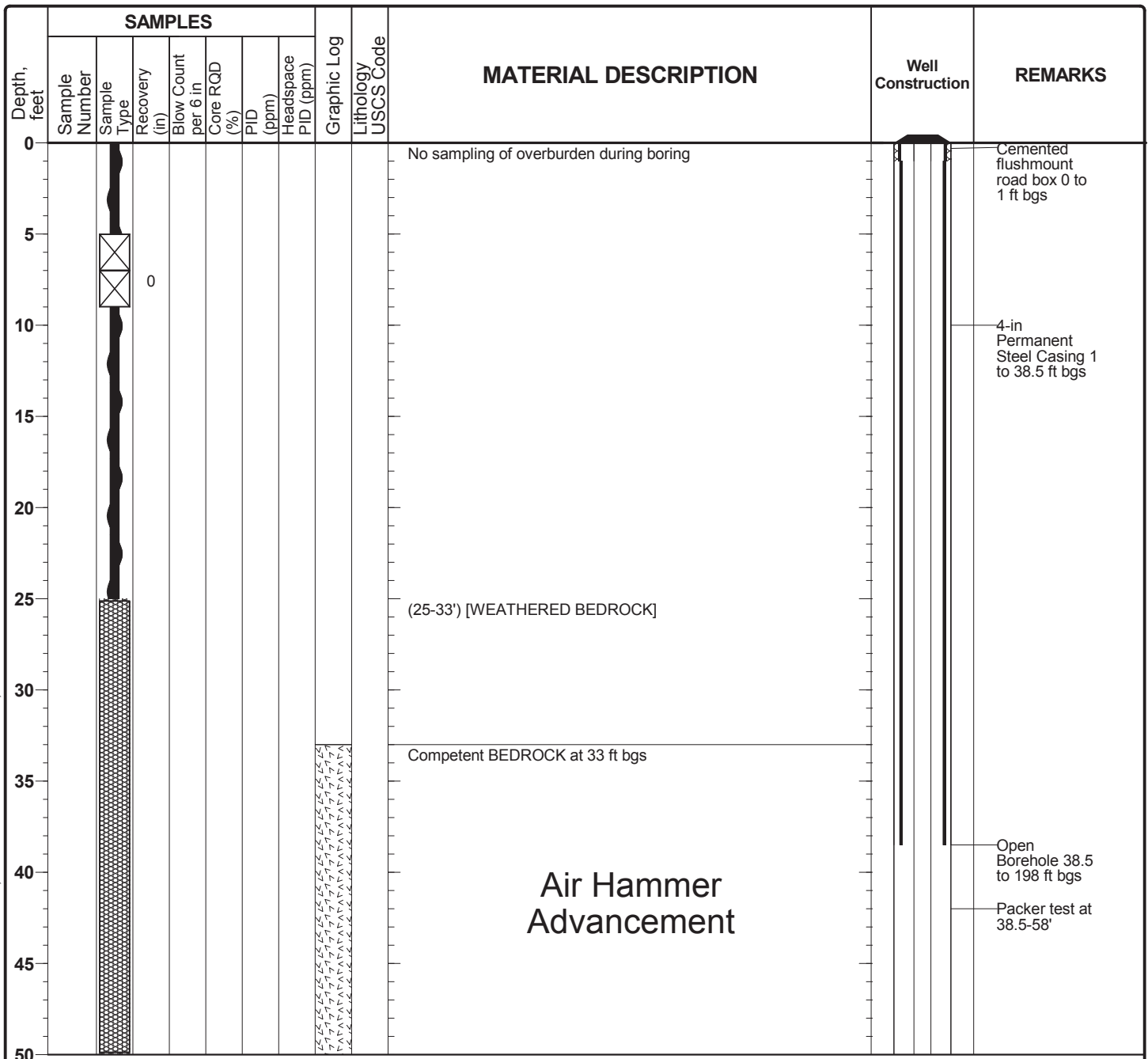
Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-33B



Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-34B
 Sheet 1 of 4

Date(s) Drilled and Installed 4/24/15 - 5/6/15	Water Surface Elevation NA	Well Casing or Riser 4-in permanent steel casing 0-38.6 ft bgs
Logged By (URS) J. Harshman	Surface Elevation NA	Screen Open bedrock hole 38.5-198 ft bgs
Drilling Contractor Geosearch	Datum	Checked By
Total Depth of Borehole 198.0 ft	Easting	Notes: Location: NE corner of Aerovox site, near chiller vault
Groundwater Level NE	Annular Fill: Open bedrock borehole 38.5-198 ft bgs	Sampler Type: No Sampling of Overburden
Diameter of Borehole 8.5 in		Hammer Data:
Drilling Method Drive & Wash/Casing/Roller Bit/Air Rotary		Well Type: Flush-mount open bedrock well



Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-34B

Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-34B
 Sheet 2 of 4

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
50												
55												
60												Packer test at 58-78'
65												
70												
75												
80												Packer test at 78-98'
85												
90												
95												
100												Packer test at 98-118'
105												
110												
115												

Air Hammer
Advancement

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-34B



Project: Former Aerovox Facility
Project Location: New Bedford, Massachusetts
Project Number: 39744051

URS Corporation
Log of Boring MW-34B
 Sheet 3 of 4

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
120												Packer test at 118-138'
125												
130												
135												
140												Packer test at 138-158'
145												
150												
155												
160												Packer test at 158-178'
165												
170												
175												
180												Packer test at 178-198'

Air Hammer
Advancement

Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-34B



Project: Former Aerovox Facility
 Project Location: New Bedford, Massachusetts
 Project Number: 39744051

URS Corporation
 Log of Boring MW-34B
 Sheet 4 of 4

Depth, feet	SAMPLES							Graphic Log	Lithology USCS Code	MATERIAL DESCRIPTION	Well Construction	REMARKS
	Sample Number	Sample Type	Recovery (in)	Blow Count per 6 in	Core RQD (%)	PID (ppm)	Headspace PID (ppm)					
185									Air Hammer Advancement			
190												
195												
200									Bottom of Exploration at 198 ft bgs			
205												
210												
215												
220												
225												
230												
235												
240												
245												
250												

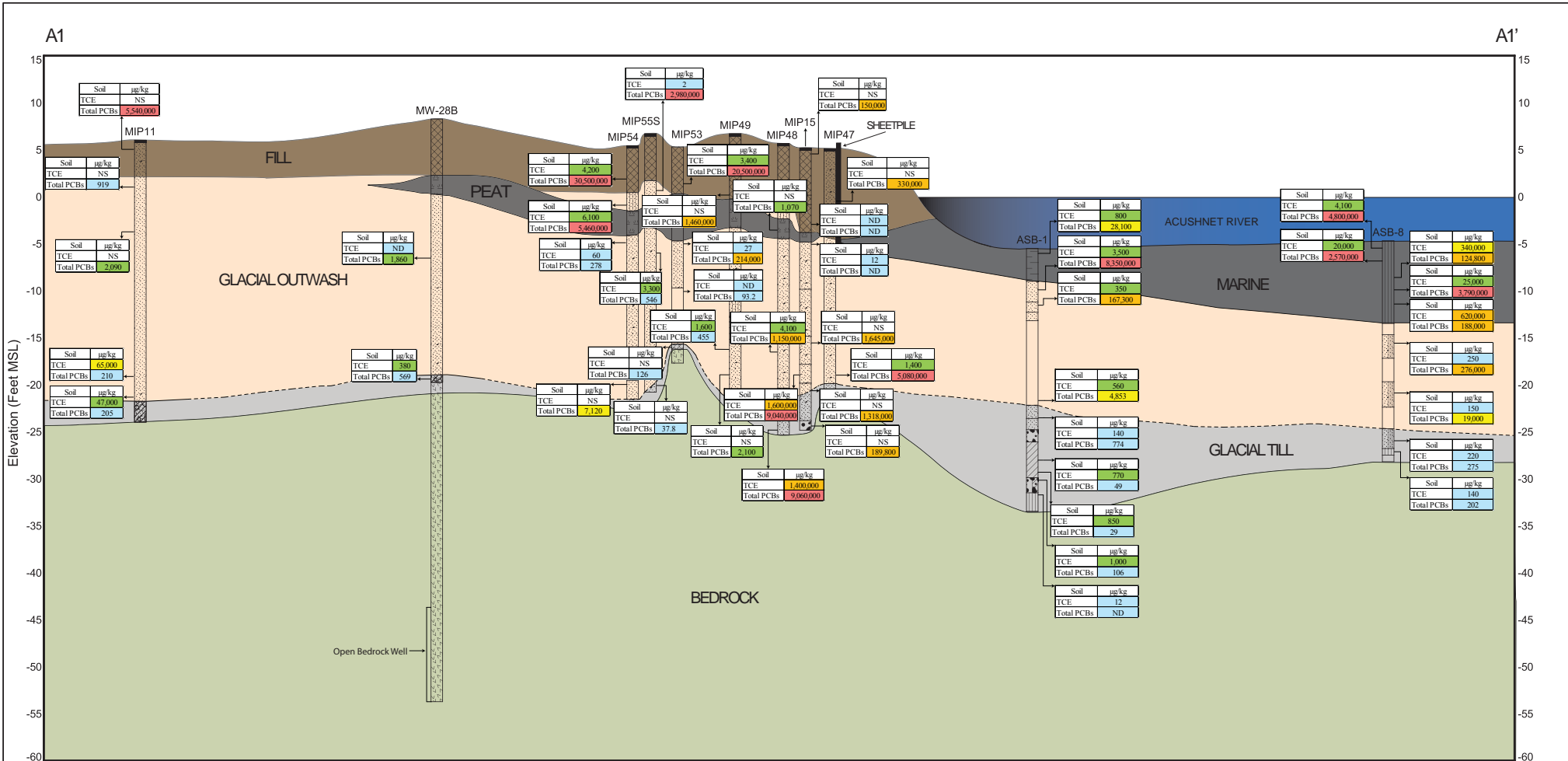
Report: AVX FINAL LOGS WITH WELL; File: AVX BORING LOGS.GPJ; 6/15/2015 MW-34B



APPENDIX H

Geological Cross Sections with Soil and Groundwater Results

Cross Sections with Soil Data



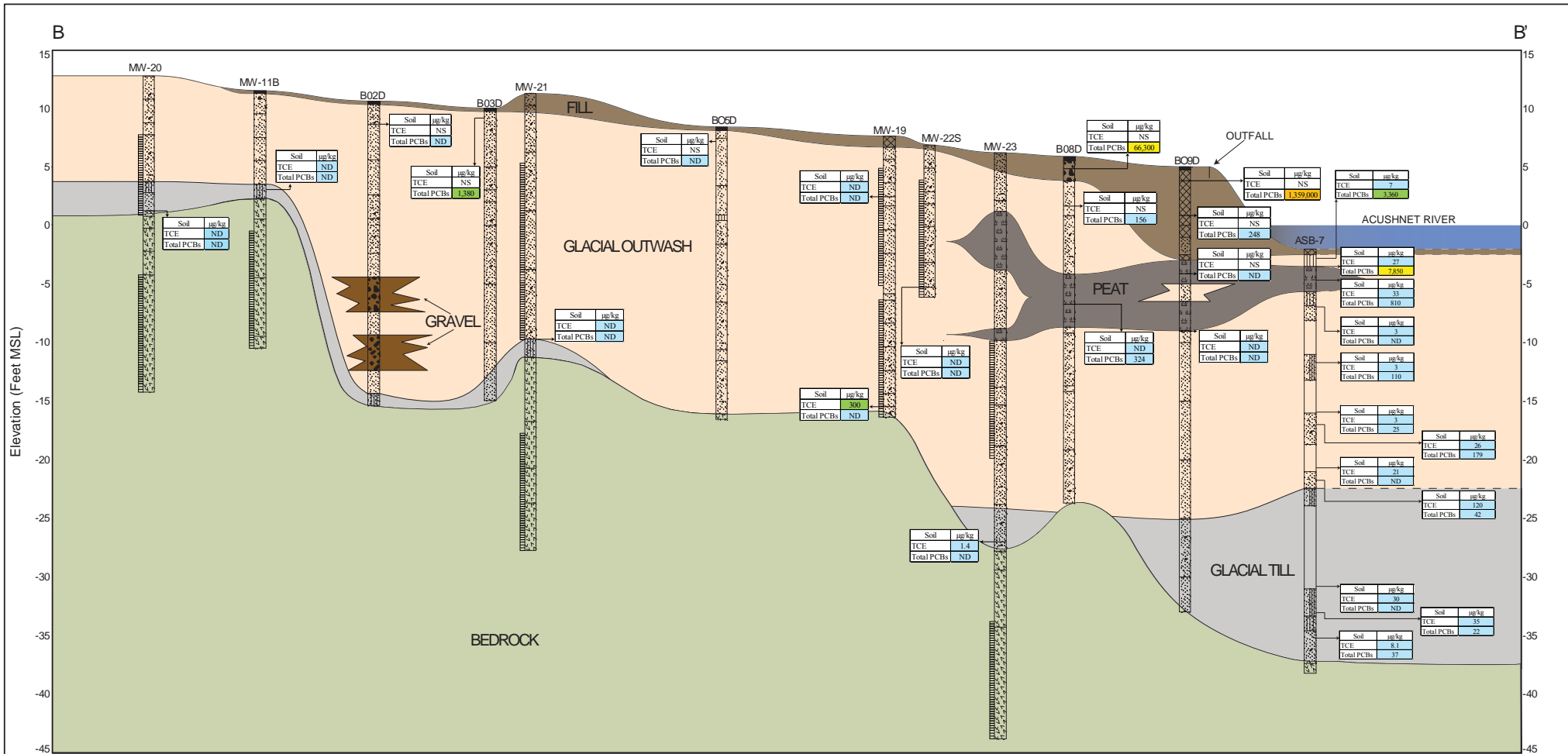
LEGEND

- | | | | | |
|--|--|--|----------------|--|
| | | | | GW Groundwater |
| | | | | TCE Trichloroethylene |
| | | | | PCBs Sum of Detected Aroclors |
| | | | NS Not Sampled | --- Lithologic Contact (Dashed where Inferred) |
| | | | ND Non-Detect | |

TCE (µg/kg)	Total PCBs (µg/kg)
< 300	< 1,000
> 300 to < 60,000	> 1,000 to < 4,000
≥ 60,000 to < 600,000	≥ 4,000 to < 100,000
≥ 600,000	≥ 100,000 to < 2,000,000
	≥ 2,000,000



GEOLOGIC CROSS-SECTION A1-A1'		
SOIL CONCENTRATIONS		
Former Aerovox Facility New Bedford, Massachusetts		
Created By: JJH	Date: 06-07-15	DRAFT



LEGEND

- | | | | | |
|--|--|--|----------------|--|
| | | | | GW Groundwater |
| | | | | TCE Trichloroethylene |
| | | | | PCBs Sum of Detected Aroclors |
| | | | NS Not Sampled | --- Lithologic Contact (Dashed where Inferred) |
| | | | ND Non-Detect | |

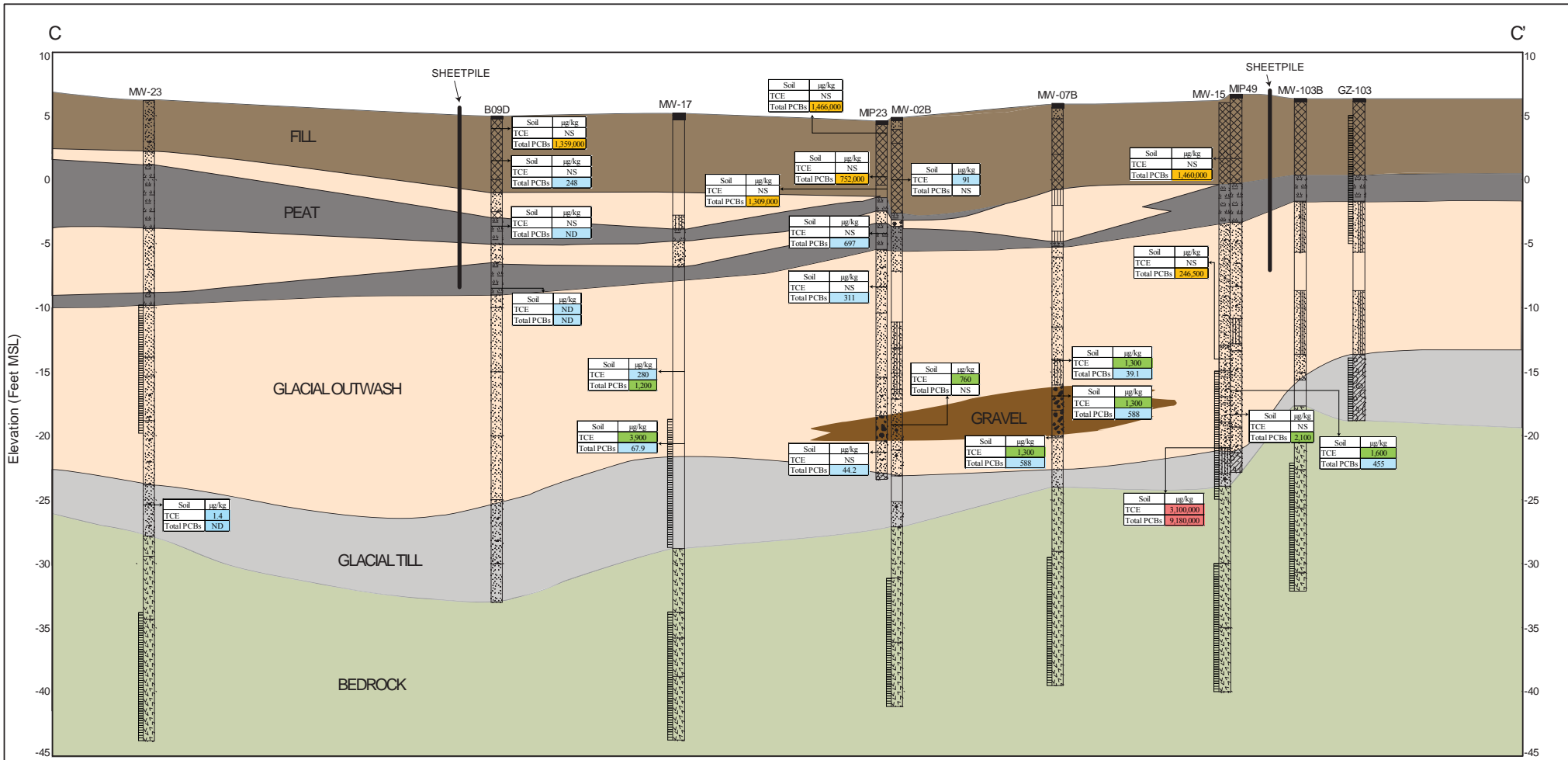
TCE (µg/kg)	Total PCBs (µg/kg)
< 300	< 1,000
≥ 300 to < 60,000	≥ 1,000 to < 4,000
≥ 60,000 to < 600,000	≥ 4,000 to < 100,000
≥ 600,000	≥ 100,000 to < 2,000,000
	≥ 2,000,000



GEOLOGIC CROSS-SECTION B-B' SOIL CONCENTRATIONS

Former Aerovox Facility
New Bedford, Massachusetts

Created By: HAB	Date: 06-07-15	DRAFT
--------------------	-------------------	-------



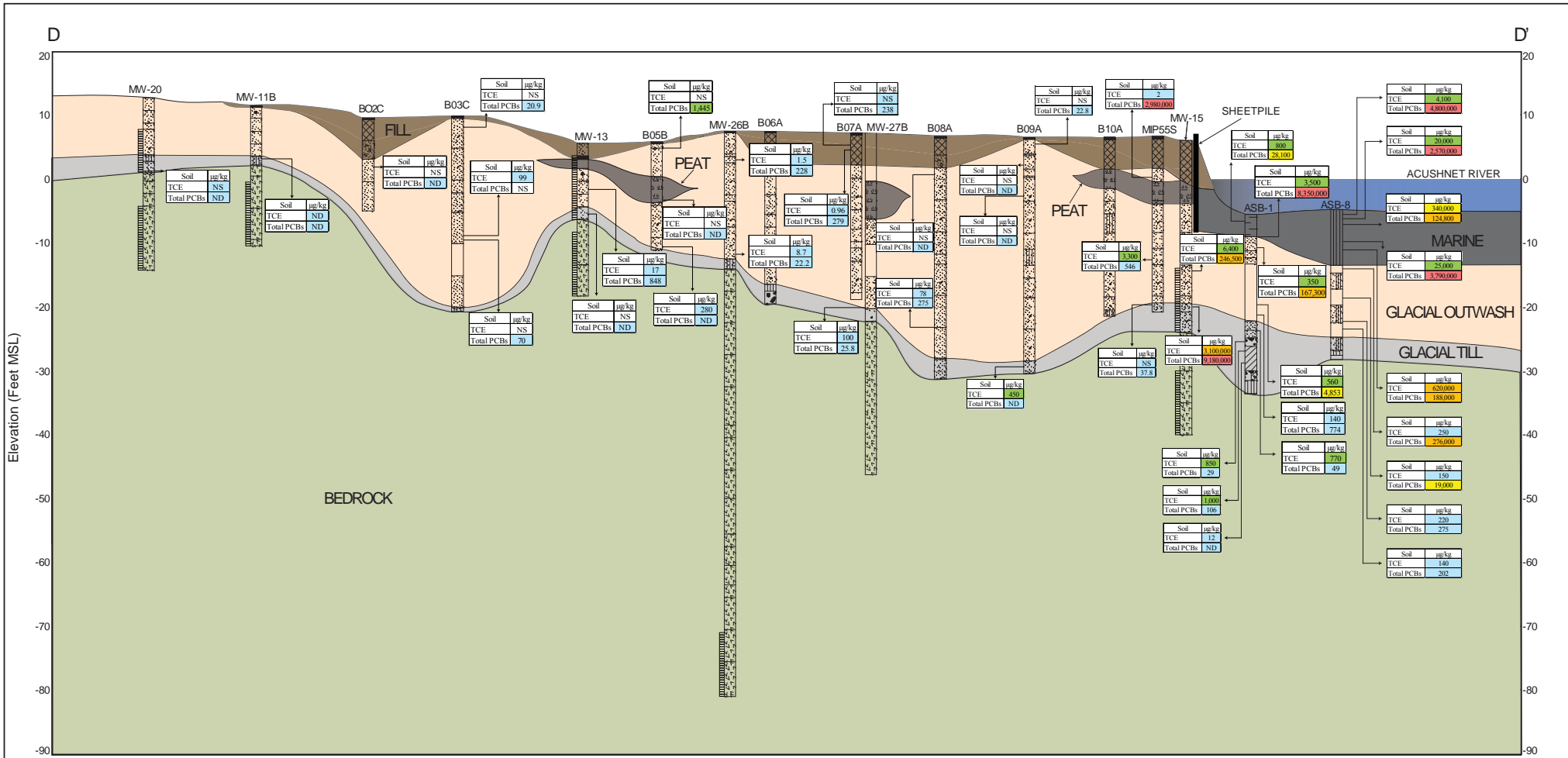
LEGEND

- | | | | | | | | | | |
|--|----------|--|------------------|--|------------------------|--|----------------|--|--|
| | Asphalt | | Gravelly Sand | | Silty Sand with Gravel | | Glacial Till | | GW Groundwater |
| | Bedrock | | Sand with Gravel | | Clayey Sand | | Organic Silt | | TCE Trichloroethylene |
| | Fill | | Sand with Silt | | Silt | | Peat | | PCBs Sum of Detected Aroclors |
| | Concrete | | Sand | | Sandy Silt | | NS Not Sampled | | Lithologic Contact (Dashed where Inferred) |
| | Gravel | | Silty Sand | | Clay | | ND Non-Detect | | |

TCE (µg/kg)	Total PCBs (µg/kg)
< 300	< 1,000
> 300 to < 60,000	≥ 1,000 to < 4,000
≥ 60,000 to < 600,000	> 4,000 to < 100,000
≥ 600,000	≥ 100,000 to < 2,000,000
	≥ 2,000,000



GEOLOGIC CROSS-SECTION C-C' SOIL CONCENTRATIONS		
Former Aerovox Facility New Bedford, Massachusetts		
Created By: HAB	Date: 06-07-15	DRAFT



LEGEND

- | | | | | | | | | | |
|--|----------|--|------------------|--|------------------------|--|----------------|--|--|
| | Asphalt | | Gravelly Sand | | Silty Sand with Gravel | | Glacial Till | | GW Groundwater |
| | Bedrock | | Sand with Gravel | | Clayey Sand | | Organic Silt | | TCE Trichloroethylene |
| | Fill | | Sand with Silt | | Silt | | Peat | | PCBs Sum of Detected Aroclors |
| | Concrete | | Sand | | Sandy Silt | | NS Not Sampled | | Lithologic Contact (Dashed where Inferred) |
| | Gravel | | Silty Sand | | Clay | | ND Non-Detect | | |

TCE (µg/kg)

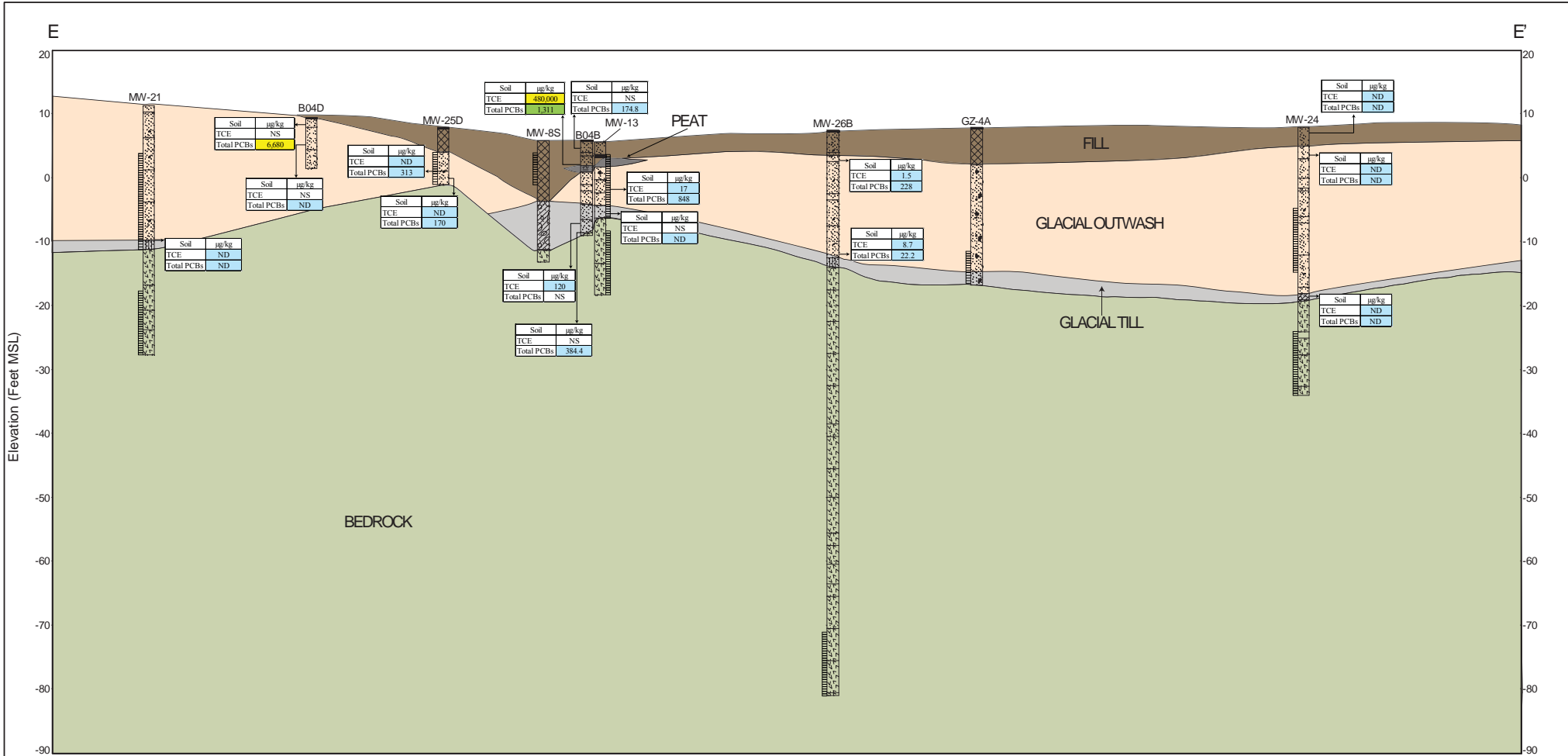
< 300
> 300 to < 60,000
> 60,000 to < 600,000
> 600,000

Total PCBs (µg/kg)

< 1,000
> 1,000 to < 4,000
> 4,000 to < 100,000
> 100,000 to < 2,000,000
> 2,000,000



GEOLOGIC CROSS-SECTION D-D' SOIL CONCENTRATIONS		
Former Aerovox Facility New Bedford, Massachusetts		
Created By: HAB	Date: 06-07-15	DRAFT



LEGEND

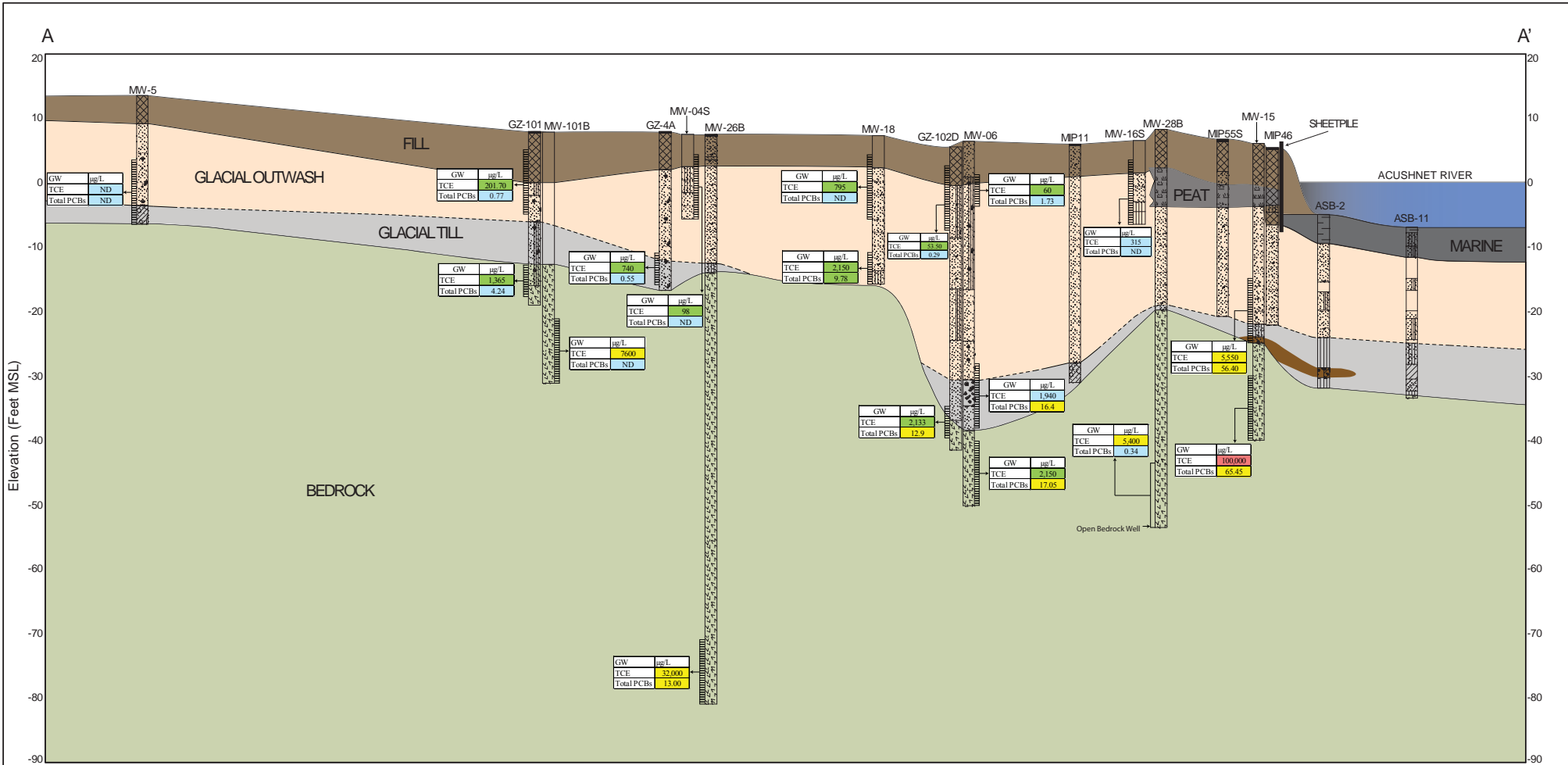
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|----------|------------------|------------------------|----------------|--|
| Asphalt | Gravelly Sand | Silty Sand with Gravel | Glacial Till | GW Groundwater |
| Bedrock | Sand with Gravel | Clayey Sand | Organic Silt | TCE Trichloroethylene |
| Fill | Sand with Silt | Silt | Peat | PCBs Sum of Detected Aroclors |
| Concrete | Sand | Sandy Silt | NS Not Sampled | --- Lithologic Contact (Dashed where Inferred) |
| Gravel | Silty Sand | Clay | ND Non-Detect | |

TCE (µg/kg)	Total PCBs (µg/kg)
< 300	< 1,000
≥ 300 to < 60,000	≥ 1,000 to < 4,000
≥ 60,000 to < 600,000	≥ 4,000 to < 100,000
≥ 600,000	≥ 100,000 to < 2,000,000
	≥ 2,000,000



GEOLOGIC CROSS-SECTION E-E' SOIL CONCENTRATIONS		
Former AeroVox Facility New Bedford, Massachusetts		
Created By: HAB	Date: 06-07-15	DRAFT

Cross Sections with Groundwater Data



Elevation (Feet MSL)

A

A'

LEGEND

- | | | | | | | | | | |
|--|--------------------|--|------------------|--|------------------------|--|--------------|------|---|
| | Asphalt | | Gravelly Sand | | Silty Sand with Gravel | | Glacial Till | GW | Groundwater |
| | Bedrock | | Sand with Gravel | | Clayey Sand | | Organic Silt | TCE | Trichloroethylene |
| | Fill (made ground) | | Sand with Silt | | Silt | | Peat | PCBs | Sum of Detected Aroclors |
| | Concrete | | Sand | | Sandy Silt | | NS | --- | Lithologic Contact
(Dashed where Inferred) |
| | Gravel | | Silty Sand | | Clay | | ND | | Non-Detect |

TCE (µg/L)	Total PCBs (µg/L)
≤5	≤5
>5	>5
>5,000 to ≤50,000	>10 to ≤100
>50,000	>100

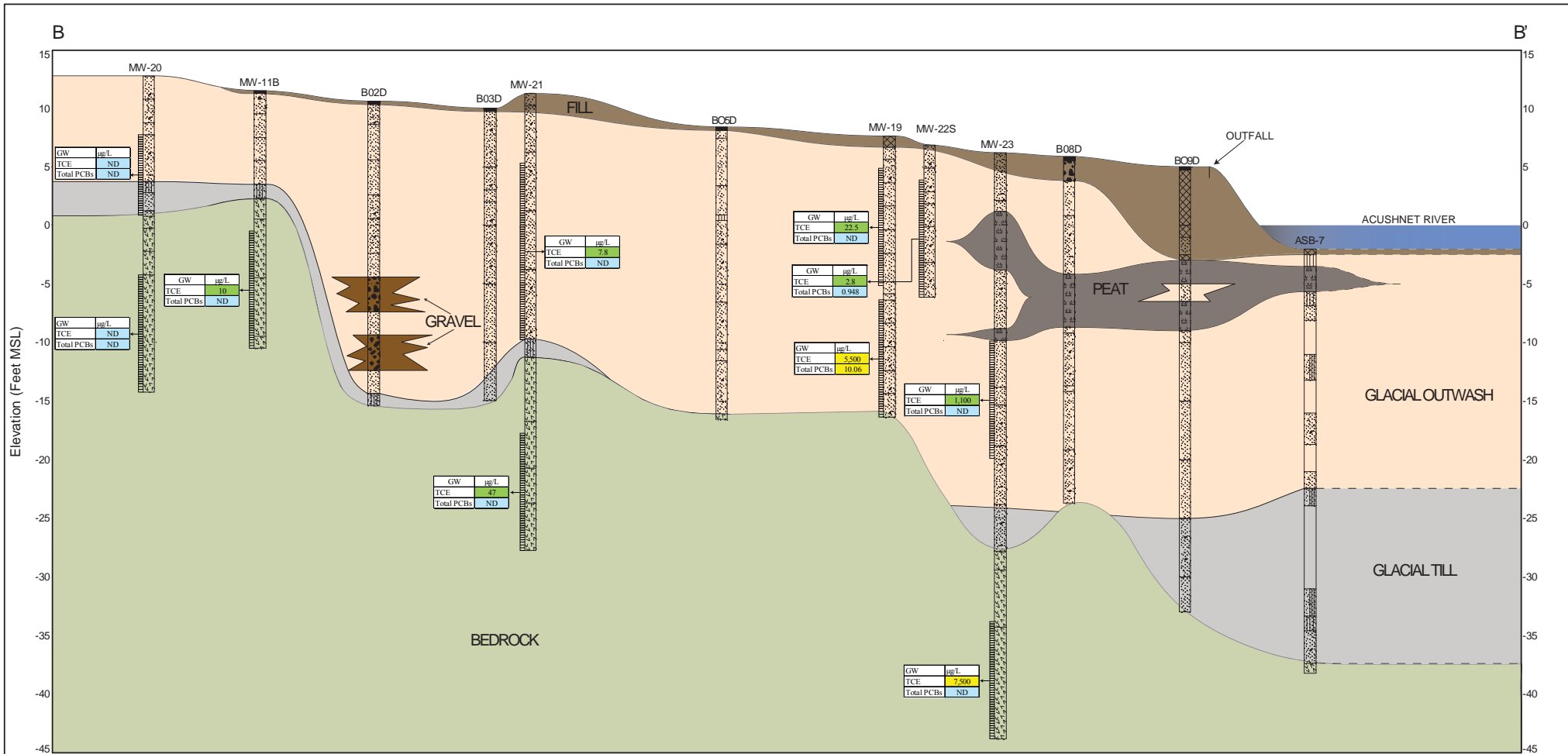
Note: Groundwater concentrations shown represent average concentrations detected between December 2010 and August 2014



**GEOLOGIC CROSS-SECTION A-A'
GROUNDWATER CONCENTRATIONS**

Former Aerovox Facility
New Bedford, Massachusetts

Created By: HAB	DATE Oct 15 14	DRAFT
--------------------	-------------------	-------



LEGEND

- | | | | | |
|--|--|--|--|--|
| | | | | GW Groundwater |
| | | | | TCE Trichloroethylene |
| | | | | PCBs Sum of Detected Aroclors |
| | | | | --- Lithologic Contact (Dashed where Inferred) |
| | | | | |

TCE (µg/L)	Total PCBs (µg/L)
≤5	≤5
>5	>5
>5,000 to ≤50,000	>10 to ≤100
>50,000	>100

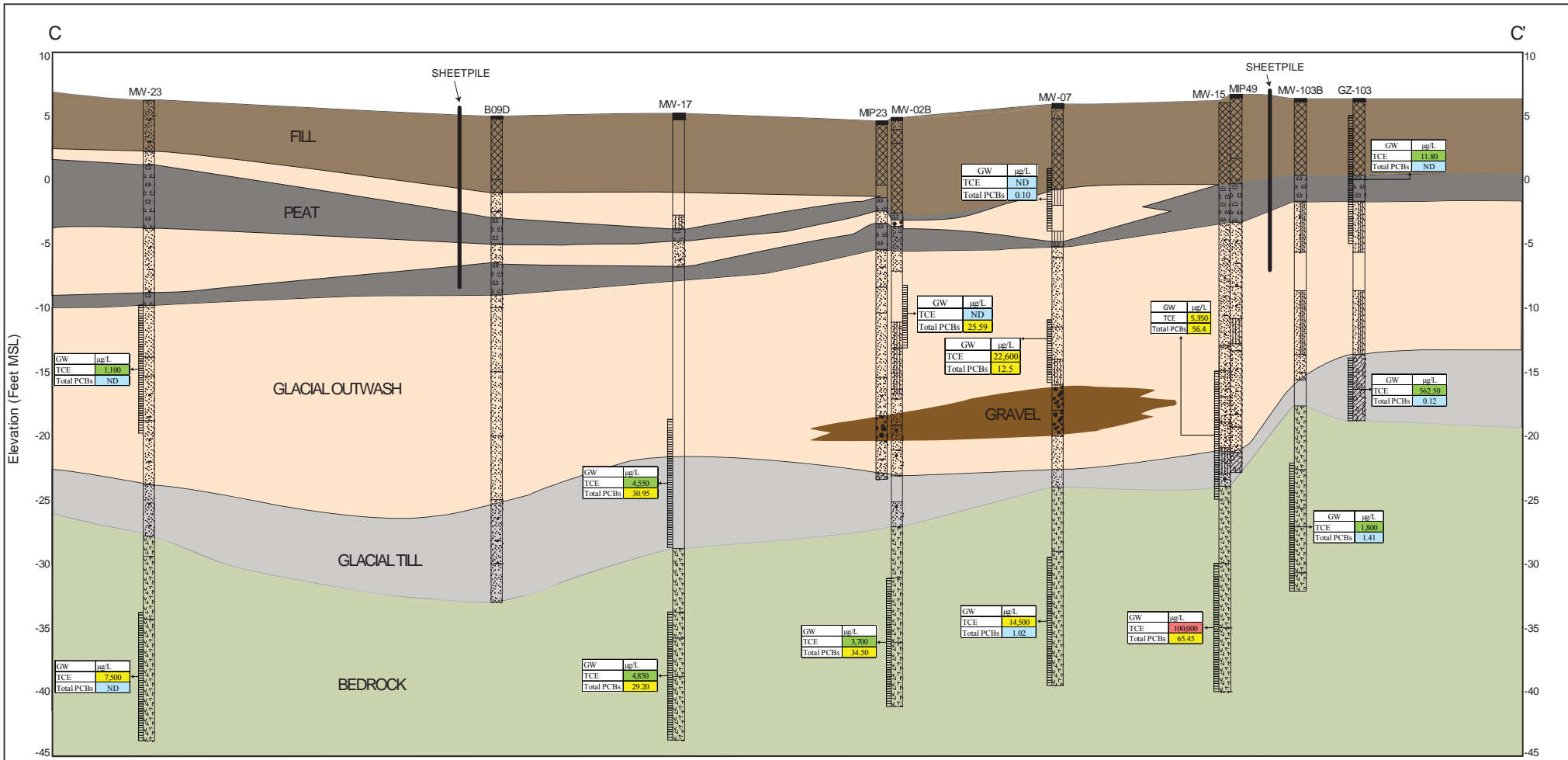
Note: Groundwater concentrations shown represent average concentrations detected between December 2010 and August 2014



**GEOLOGIC CROSS-SECTION B-B'
GROUNDWATER CONCENTRATIONS**

Former Aerovox Facility
New Bedford, Massachusetts

Created By:	DATE	DRAFT
HAB	06/07/15	



LEGEND

- | | | | | |
|--------------------|------------------|------------------------|----------------|--|
| Asphalt | Gravelly Sand | Silty Sand with Gravel | Glacial Till | GW Groundwater |
| Bedrock | Sand with Gravel | Clayey Sand | Organic Silt | TCE Trichloroethylene |
| Fill (made ground) | Sand with Silt | Silt | Peat | PCBs Sum of Detected Aroclors |
| Concrete | Sand | Sandy Silt | NS Not Sampled | --- Lithologic Contact (Dashed where Inferred) |
| Gravel | Silty Sand | Clay | ND Non-Detect | |

TCE (µg/L)	Total PCBs (µg/L)
≤5	≤5
>5	>5
>5,000 to ≤50,000	>10 to ≤100
>50,000	>100

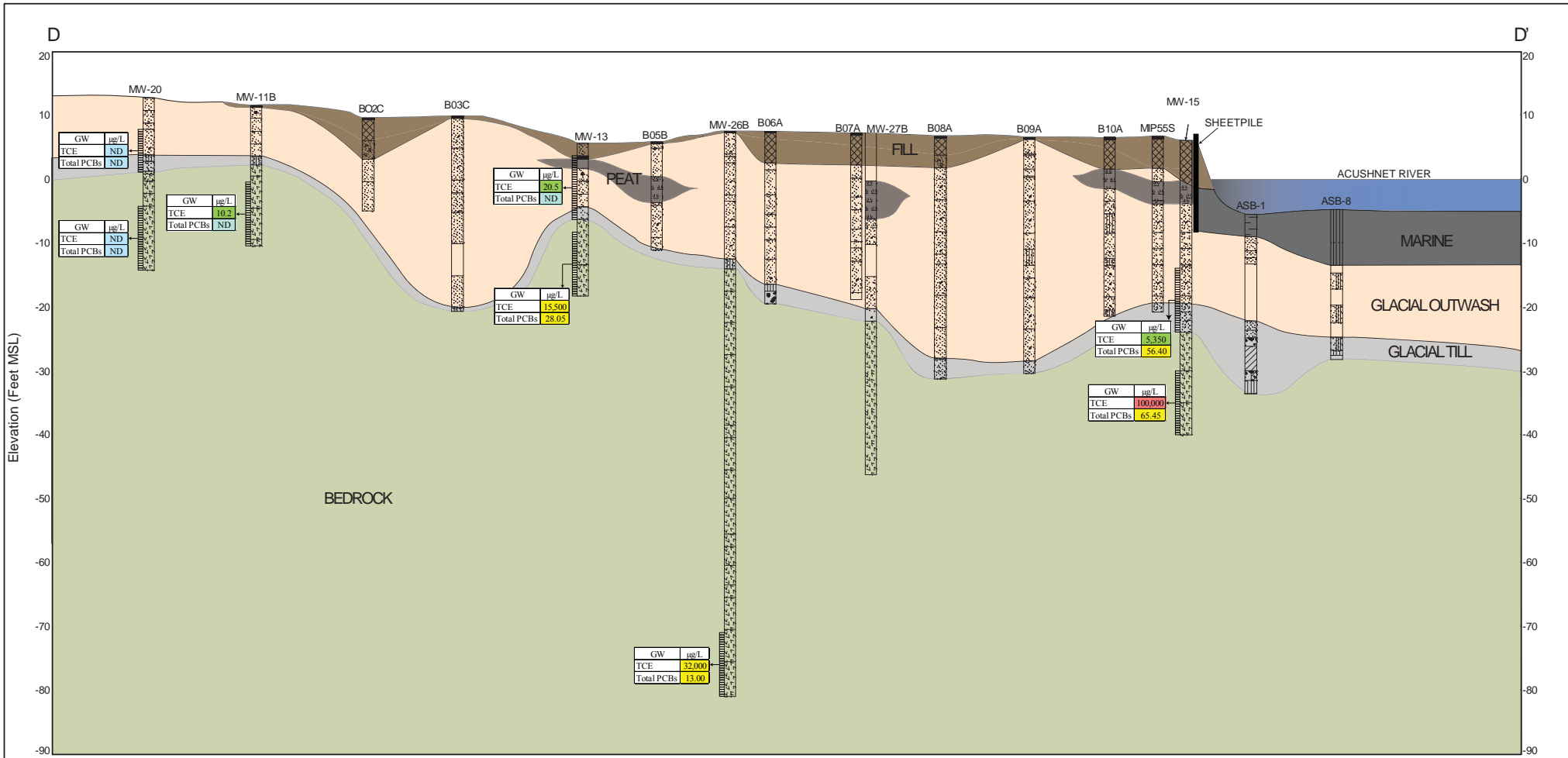
Note: Groundwater concentrations shown represent average concentrations detected between December 2010 and August 2014



**GEOLOGIC CROSS-SECTION C-C'
GROUNDWATER CONCENTRATIONS**

Former Aerovox Facility
New Bedford, Massachusetts

Created By:	DATE	DRAFT
HAB	06/07/15	



LEGEND

- | | | | | | | | | | |
|--|--------------------|--|------------------|--|------------------------|--|--------------|--|--|
| | Asphalt | | Gravelly Sand | | Silty Sand with Gravel | | Glacial Till | | Groundwater |
| | Bedrock | | Sand with Gravel | | Clayey Sand | | Organic Silt | | Trichloroethylene |
| | Fill (made ground) | | Sand with Silt | | Silt | | Peat | | Sum of Detected Aroclors |
| | Concrete | | Sand | | Sandy Silt | | NS | | Lithologic Contact (Dashed where Inferred) |
| | Gravel | | Silty Sand | | Clay | | ND | | Not-Sampled |
| | | | | | | | | | Non-Detect |

TCE (µg/L)	Total PCBs (µg/L)
≤5	≤5
>5	>5
>5,000 to ≤50,000	>10 to ≤100
>50,000	>100

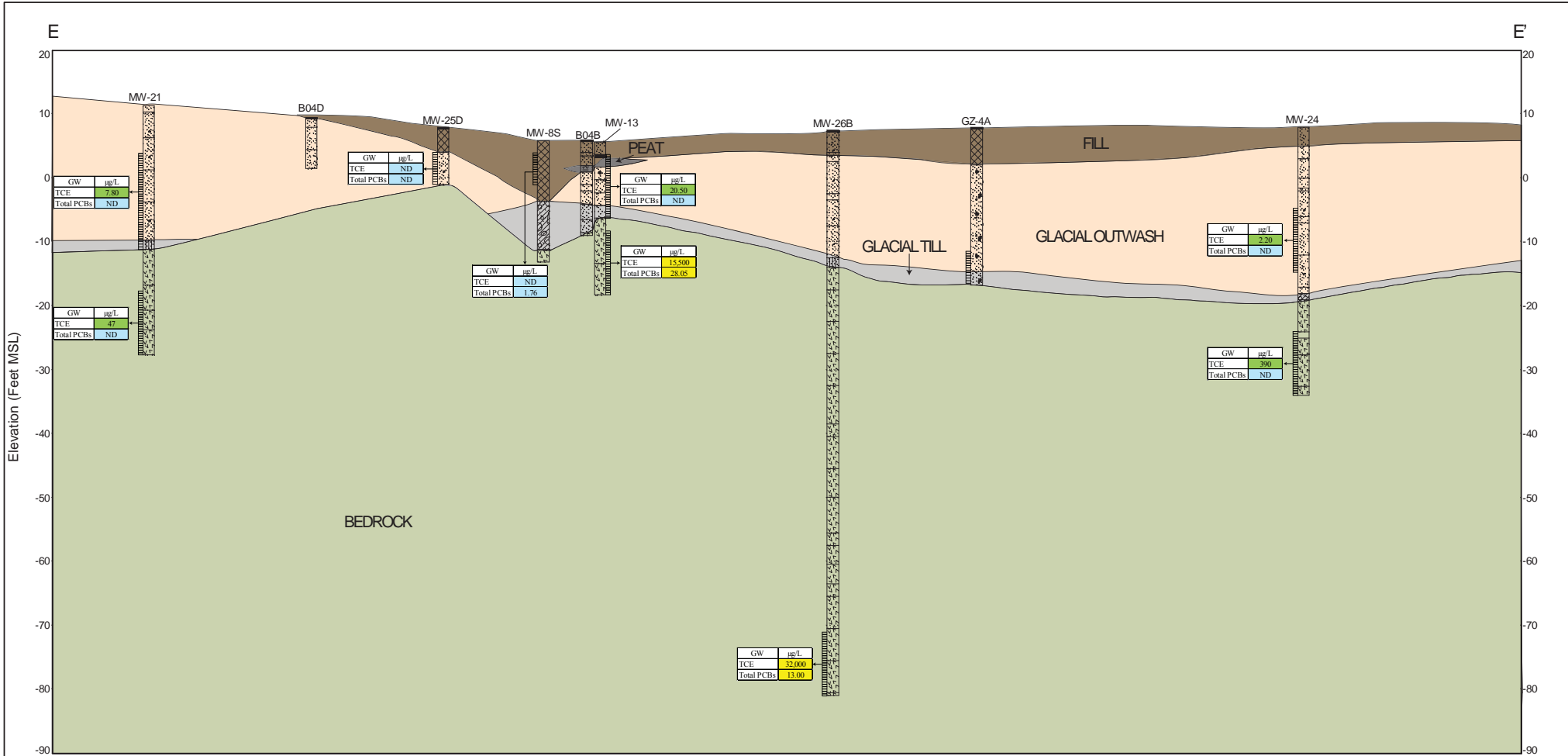
Note: Groundwater concentrations shown represent average concentrations detected between December 2010 and August 2014



GEOLOGIC CROSS-SECTION D-D' GROUNDWATER CONCENTRATIONS

Former Aerovox Facility
New Bedford, Massachusetts

Created By: HAB	DATE 06/07/15	DRAFT
--------------------	------------------	-------



LEGEND

- | | | | | |
|--------------------|------------------|------------------------|----------------|--|
| Asphalt | Gravelly Sand | Silty Sand with Gravel | Glacial Till | GW Groundwater |
| Bedrock | Sand with Gravel | Clayey Sand | Organic Silt | TCE Trichloroethylene |
| Fill (made ground) | Sand with Silt | Silt | Peat | PCBs Sum of Detected Aroclors |
| Concrete | Sand | Sandy Silt | NS Not Sampled | --- Lithologic Contact (Dashed where Inferred) |
| Gravel | Silty Sand | Clay | ND Non-Detect | |

TCE (µg/L)	Total PCBs (µg/L)
≤5	≤5
>5	>5
>5,000 to ≤50,000	>10 to ≤100
>50,000	>100

Note: Groundwater concentrations shown represent average concentrations detected between December 2010 and August 2014



**GEOLOGIC CROSS-SECTION E-E'
GROUNDWATER CONCENTRATIONS**

Former AeroVox Facility
New Bedford, Massachusetts

Created By: HAB	DATE 06/07/15	DRAFT
--------------------	------------------	-------

APPENDIX I

Preliminary Borehole Geophysical Logs for Deep Bedrock Wells

HAGER-RICHTER GEOSCIENCE, INC.

8 Industrial Way - D10
Salem, NH 03079
Phone: 603-893-9244
Fax: 603-893-8313

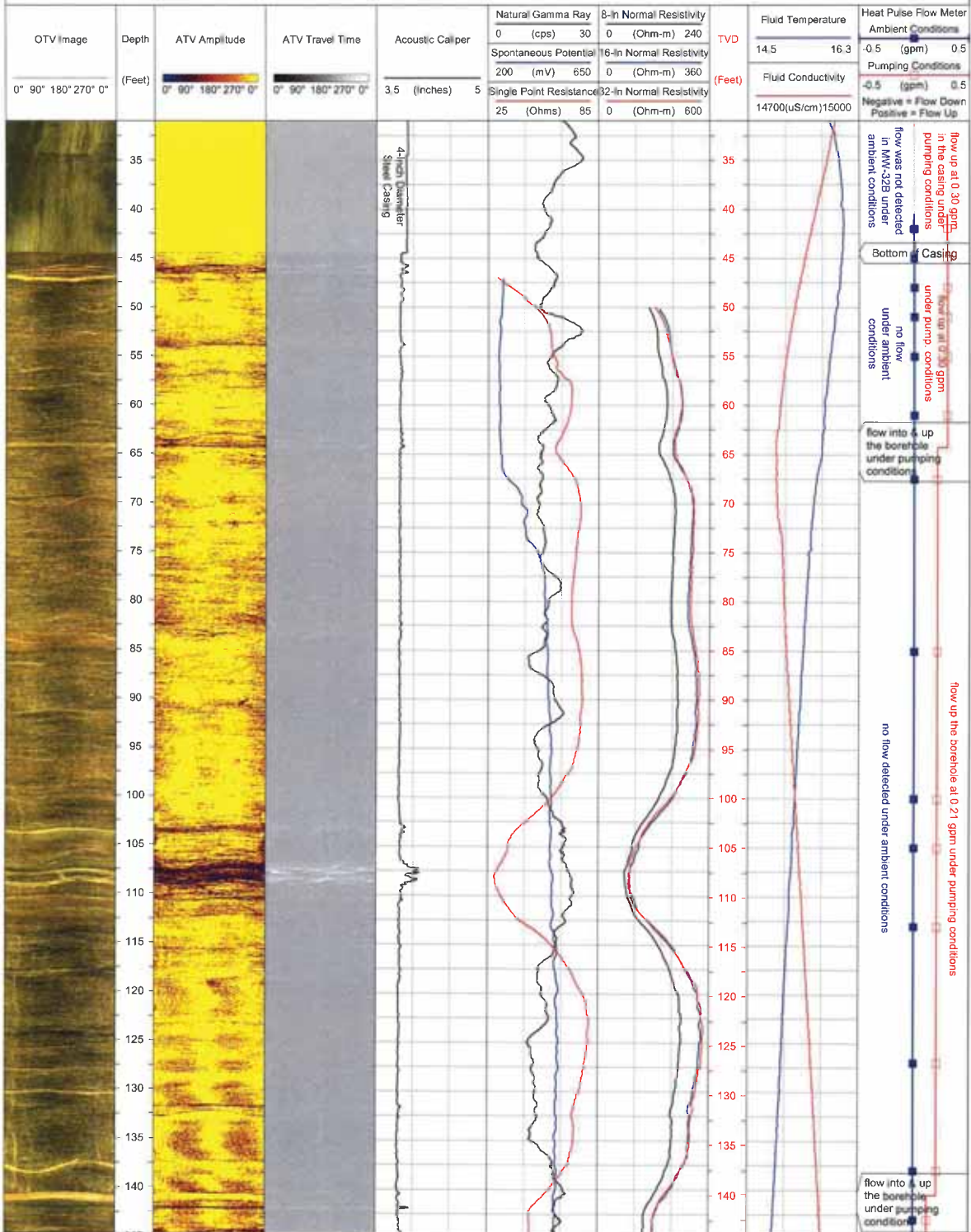
MW-32B - BOREHOLE GEOPHYSICAL LOGS - PRELIMINARY

DATE(S) LOGGED: May 20, 2015

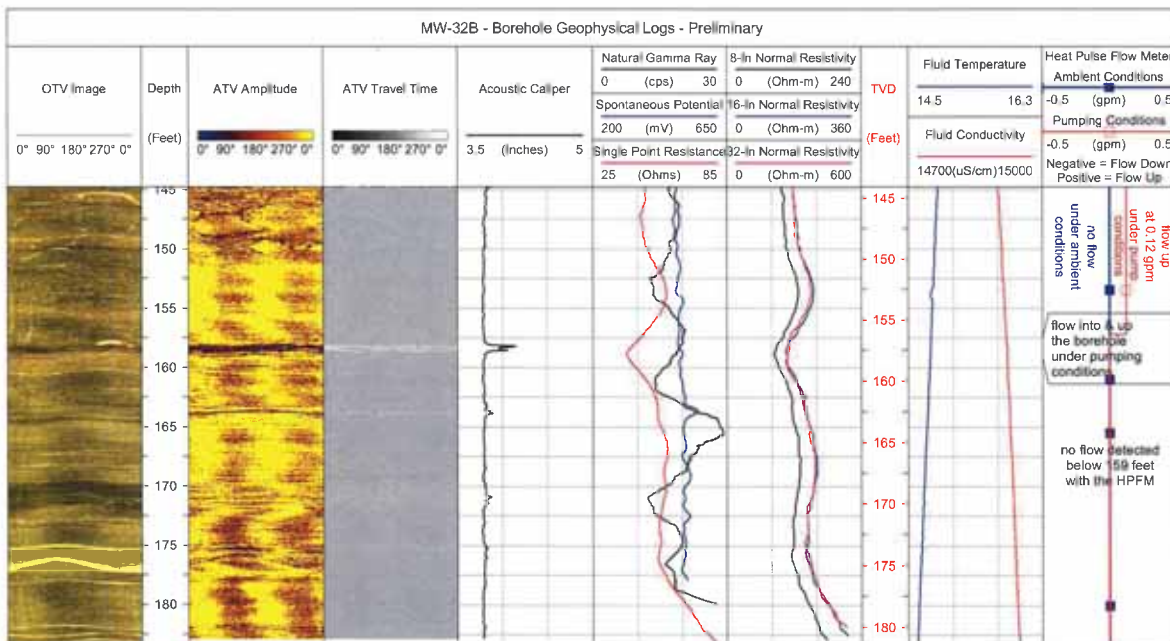
CLIENT: AECOM
PROJECT: Former Aerovox Property
LOCATION: 740 Belleville Avenue, New Bedford, Massachusetts
LOGGING GEOPHYSICIST(S): Nick DeCristofaro & Mikko Aarnio
CLIENT REP(S) ON-SITE: Jeff Harshman
LOGS PROCESSED BY: Robert Garfield

HAGER-RICHTER FILE: 15RG09
LOG DATUM: Top of the 4-Inch Steel Casing
ORIENTATION REFERENCE: True North (Magnetic Declination = 15° West)
TOP OF CASING: 1.0 Feet Below the Ground Surface
BOREHOLE DIAMETER: 4 Inches
WATER LEVEL DEPTH: 3.0 Feet

MW-32B - Borehole Geophysical Logs - Preliminary



MW-32B - Borehole Geophysical Logs - Preliminary



**HAGER-RICHTER
GEOSCIENCE, INC.**

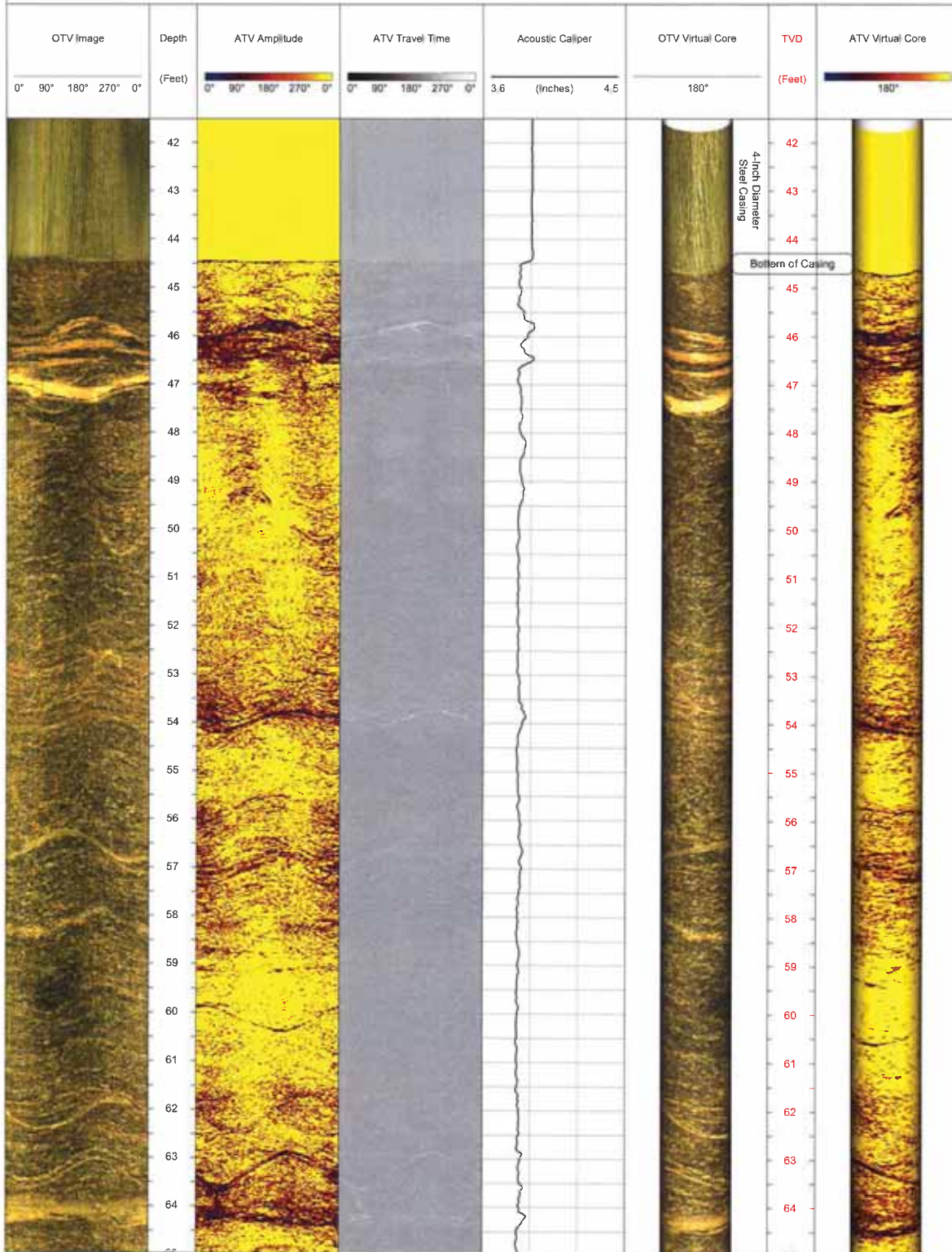
8 Industrial Way - D10
Salem, NH 03079
Phone: 603-893-9844
Fax: 603-893-8313

MW-32B - BOREHOLE IMAGE LOGS - PRELIMINARY

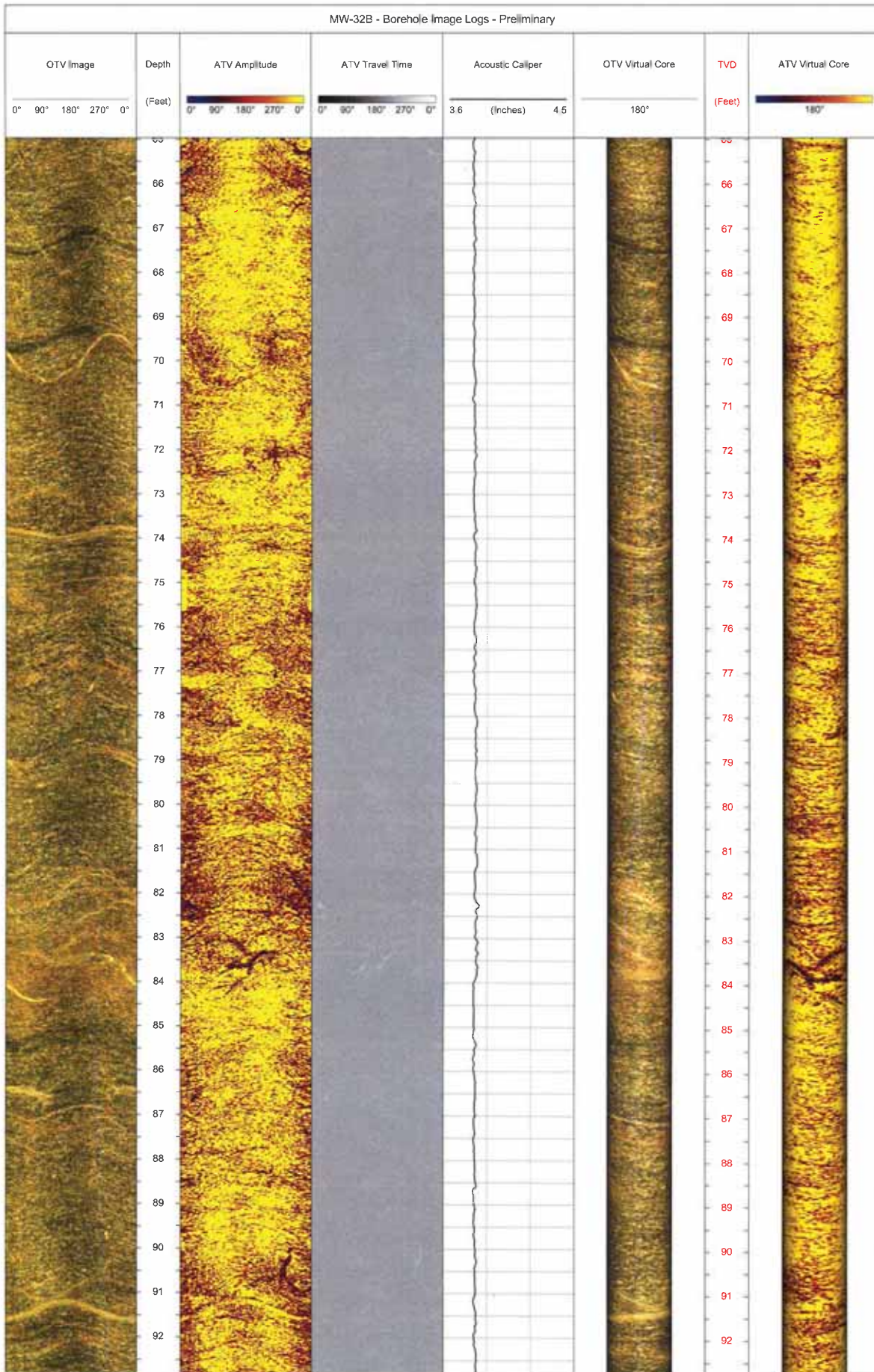
DATE(S) LOGGED: May 20, 2015

CLIENT:	AECOM	HAGER-RICHTER FILE:	15RG09
PROJECT:	Former Aeroxox Property - Borehole Geophysical Logging	LOG DATUM:	Top of the 4-inch Steel Casing
LOCATION:	740 Belleville Avenue, New Bedford, Massachusetts	ORIENTATION REFERENCE:	True North (Magnetic Declination = 15° West)
LOGGING GEOPHYSICIST(S):	Nick DeCristofaro & Mikko Aarnio	TOP OF CASING:	1.0 Feet Below the Ground Surface
CLIENT REP(S) ON-SITE:	Jeff Harshman	BOREHOLE DIAMETER:	4 Inches
LOGS PROCESSED BY:	Robert Garfield	WATER LEVEL DEPTH:	3.0 Feet

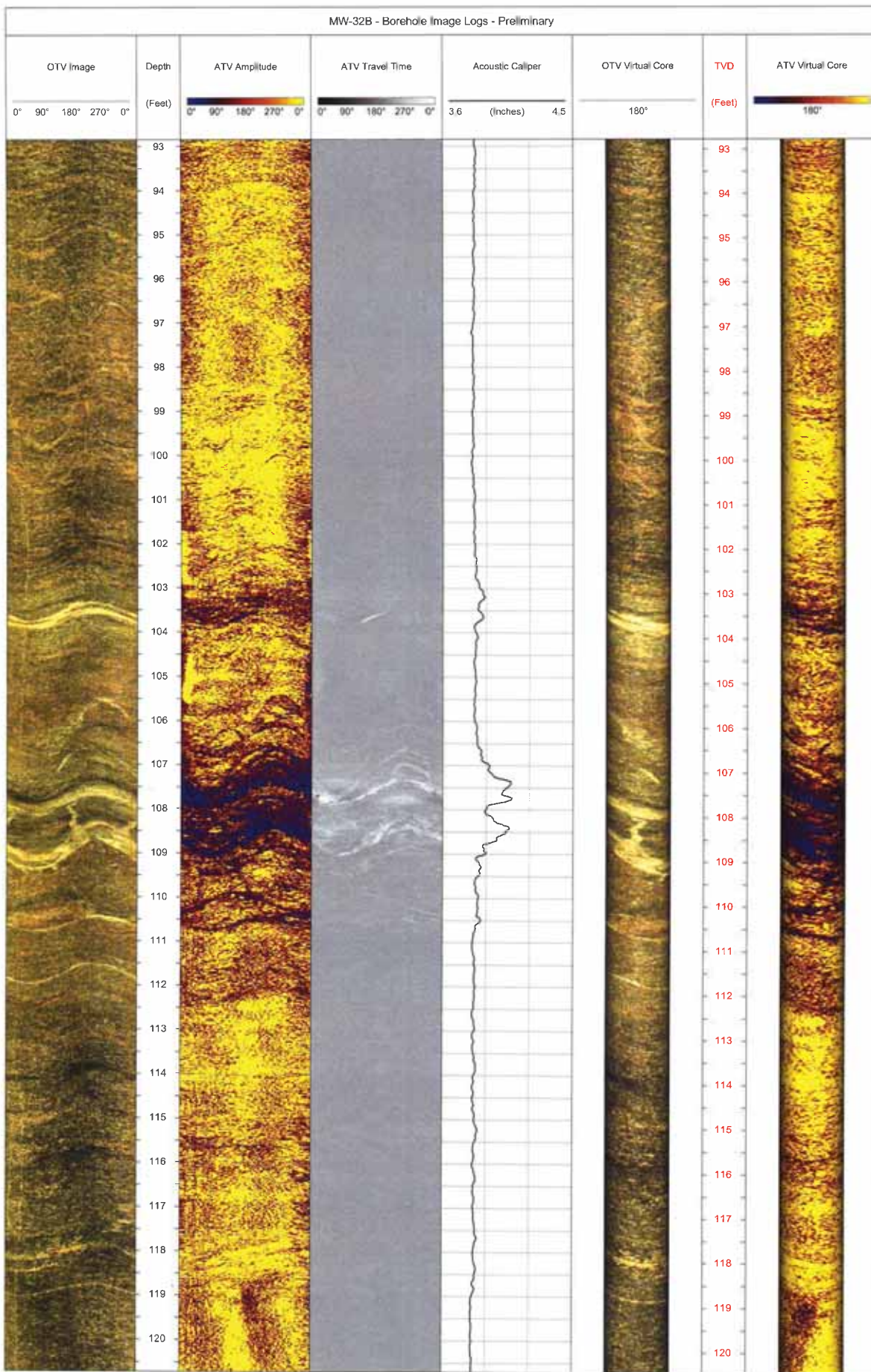
MW-32B - Borehole Image Logs - Preliminary



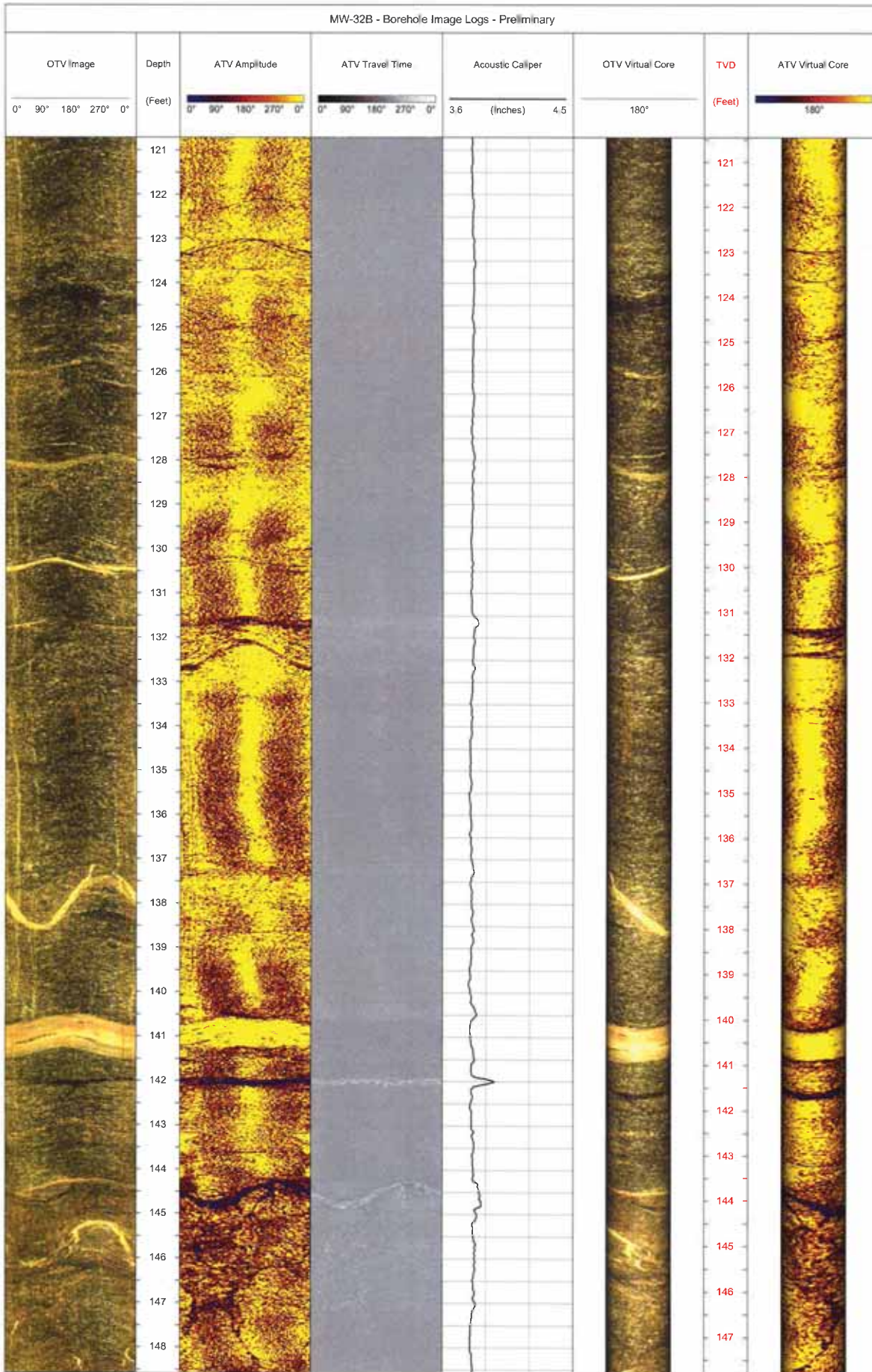
MW-32B - Borehole Image Logs - Preliminary



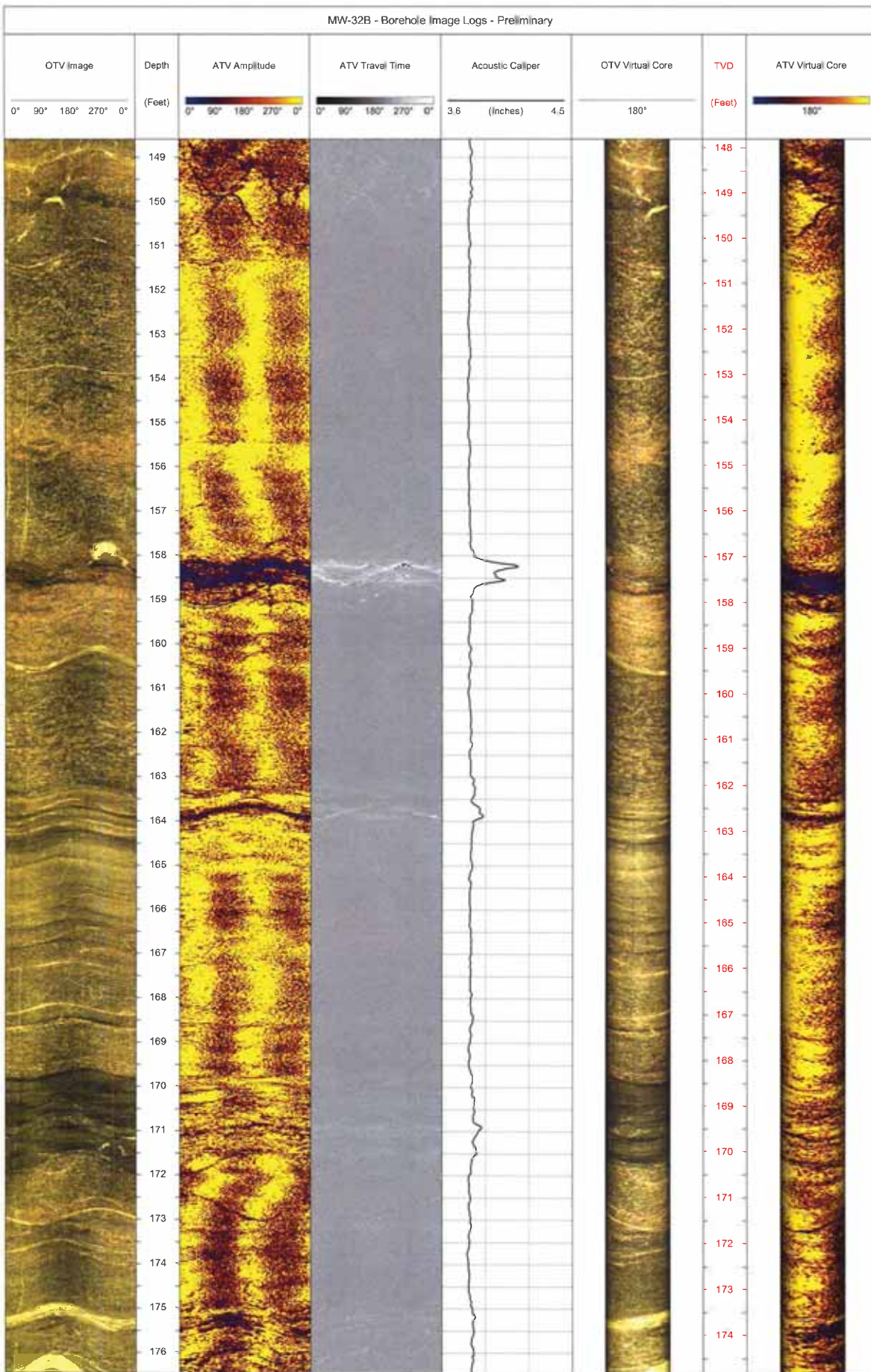
MW-32B - Borehole Image Logs - Preliminary



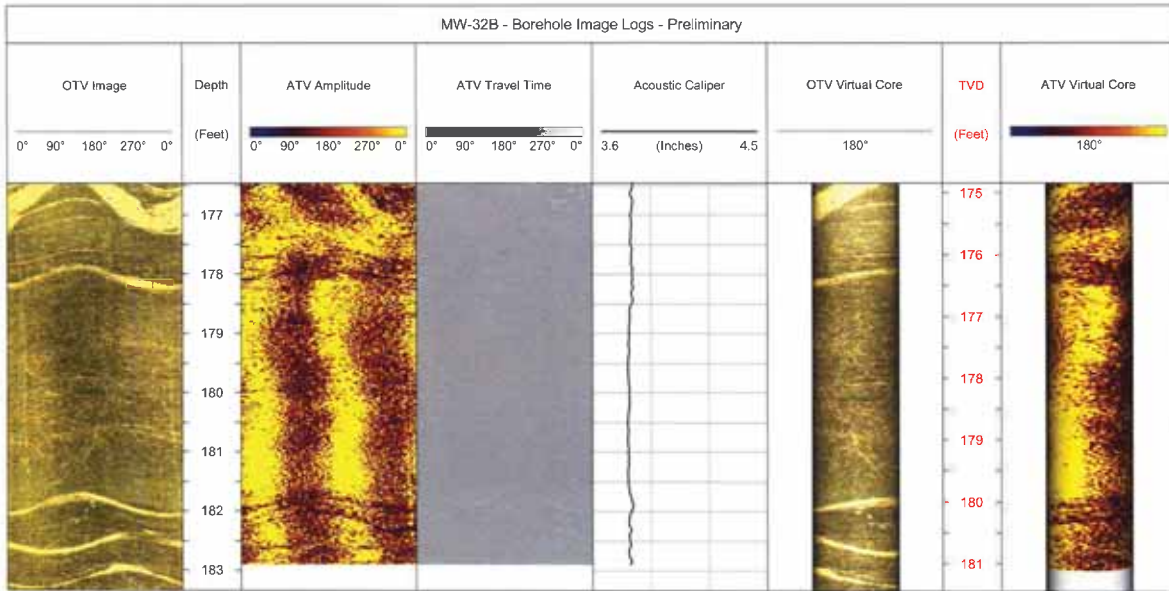
MW-32B - Borehole Image Logs - Preliminary



MW-32B - Borehole Image Logs - Preliminary



MW-32B - Borehole Image Logs - Preliminary



HAGER-RICHTER GEOSCIENCE, INC.

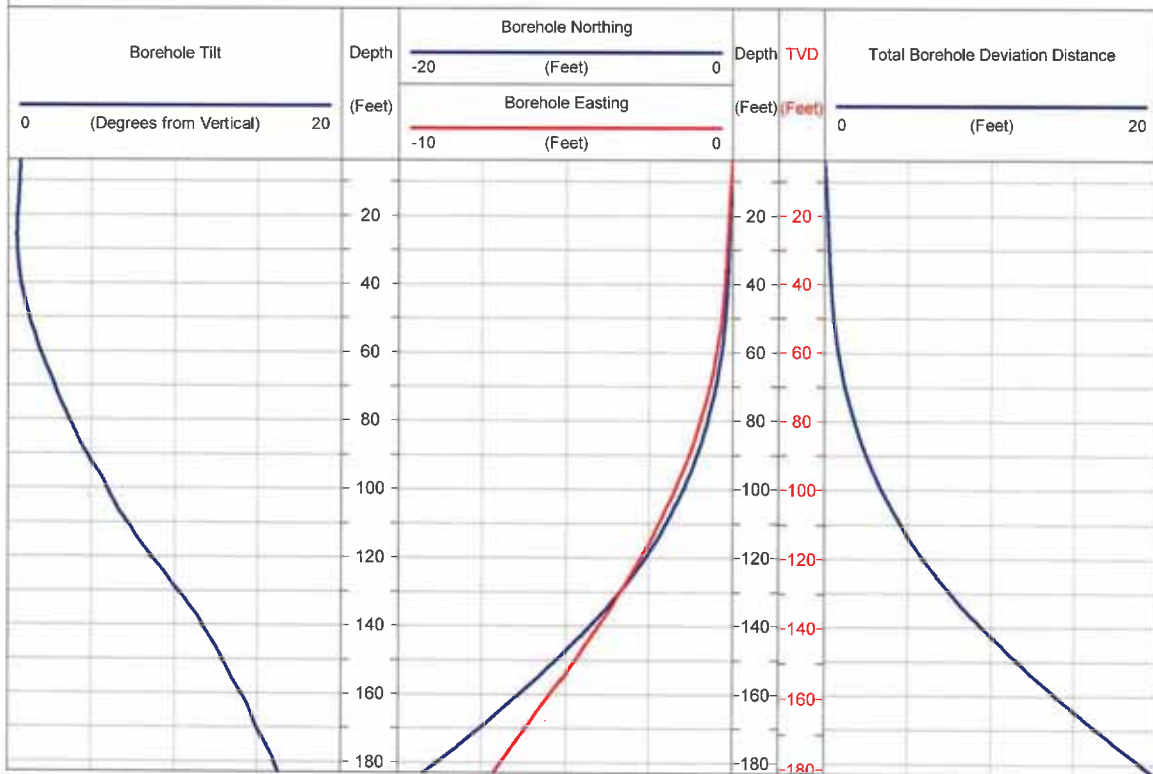
8 Industrial Way - D10
Salem, NH 03079
Phone: 603-893-9944
Fax: 603-893-8313

MW-32B - BOREHOLE DEVIATION LOGS

DATE(S) LOGGED: May 20, 2015

CLIENT:	AECOM	HAGER-RICHTER FILE:	15RG09
PROJECT:	Former Aerovox Property	LOG DATUM:	Top of 4-Inch Steel Casing
LOCATION:	740 Belleville Avenue, New Bedford, MA	ORIENTATION REFERENCE:	True North
GEOPHYSICISTS:	N. DeCristofaro & M. Aarnio	MAGNETIC DECLINATION:	15° West

MW-32B - Borehole Deviation Logs



HAGER-RICHTER GEOSCIENCE, INC.

8 Industrial Way - D10
Salem, NH 03079
Phone: 603-893-9544
Fax: 603-893-8313

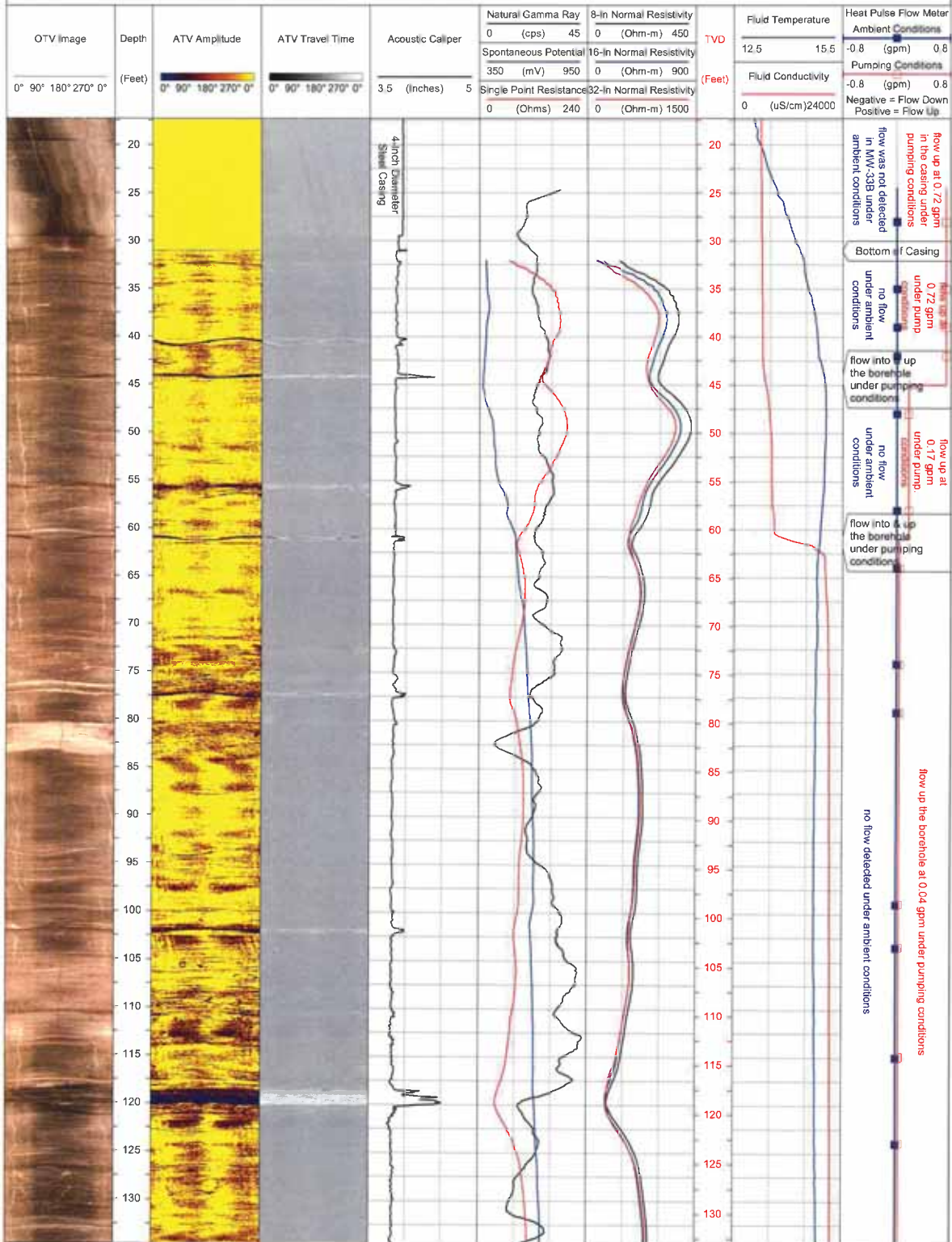
MW-33B - BOREHOLE GEOPHYSICAL LOGS - PRELIMINARY

DATE(S) LOGGED: May 19, 2015

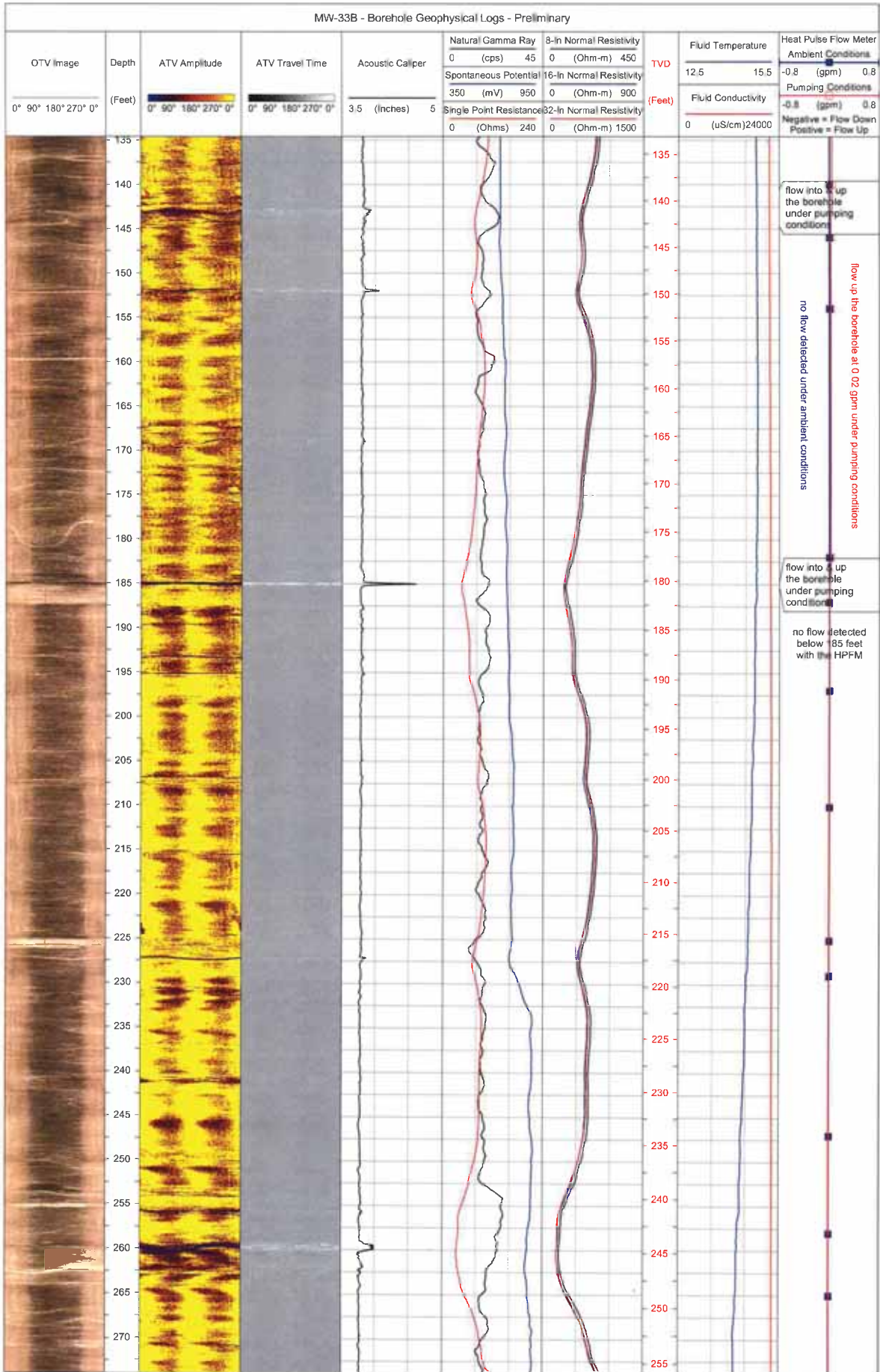
CLIENT: AECOM
PROJECT: Former Aerovox Property
LOCATION: 740 Belleville Avenue, New Bedford, Massachusetts
LOGGING GEOPHYSICIST(S): Nick DeCristofaro & Mikko Aarnio
CLIENT REP(S) ON-SITE: Jeff Harshman
LOGS PROCESSED BY: Robert Garfield

HAGER-RICHTER FILE: 15RG09
LOG DATUM: Top of the 4-Inch Steel Casing
ORIENTATION REFERENCE: True North (Magnetic Declination = 15° West)
TOP OF CASING: 1.0 Feet Below the Ground Surface
BOREHOLE DIAMETER: 4 Inches
WATER LEVEL DEPTH: 4.8 Feet

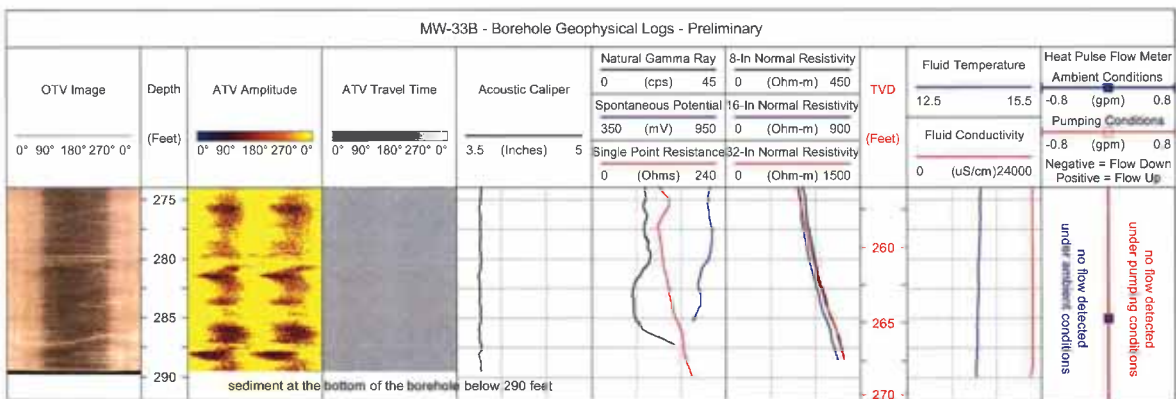
MW-33B - Borehole Geophysical Logs - Preliminary



MW-33B - Borehole Geophysical Logs - Preliminary



MW-33B - Borehole Geophysical Logs - Preliminary



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GEOSCIENCE, INC.**

8 Industrial Way - D10
Salem, NH 03079
Phone: 603-893-9944
Fax: 603-893-8313

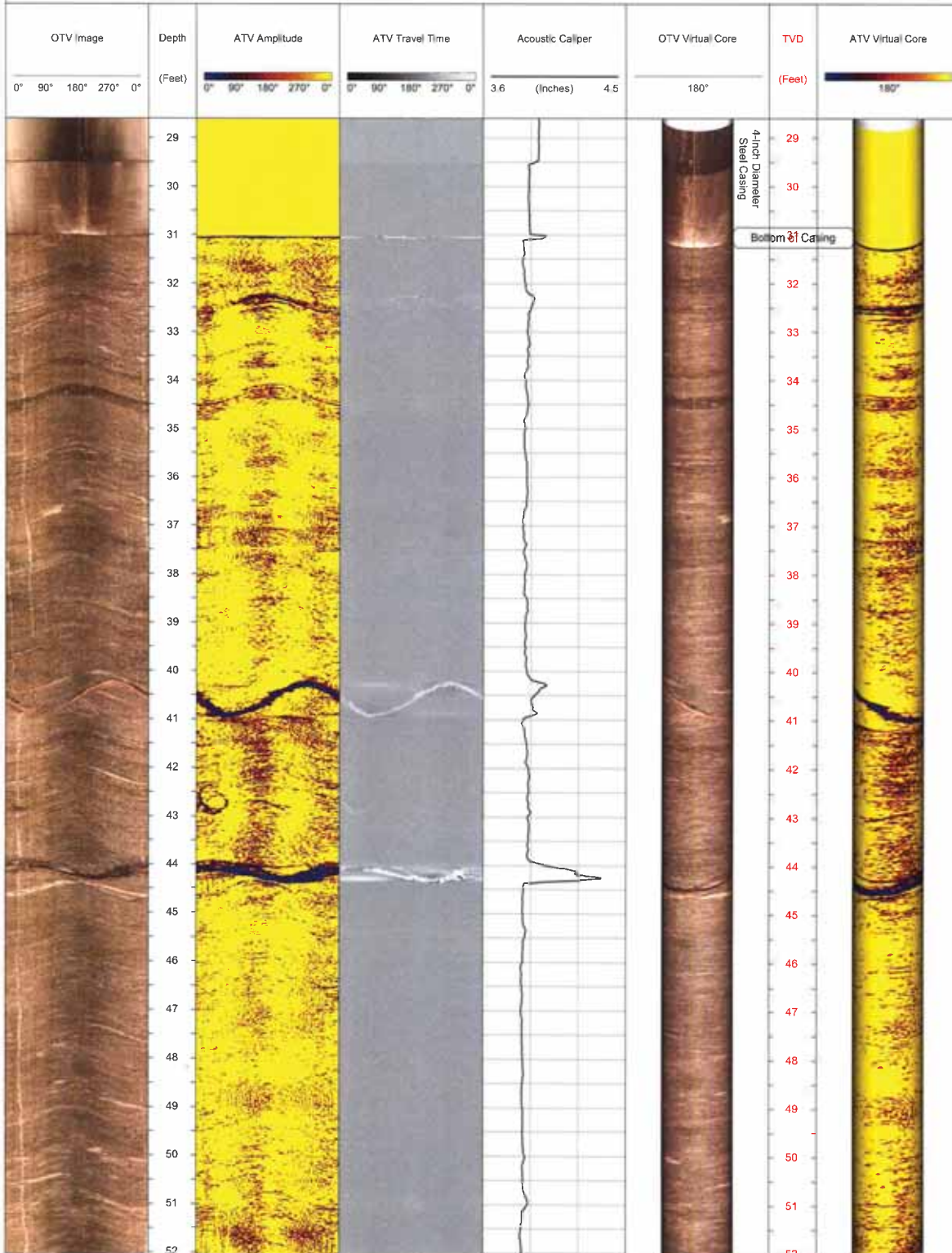
MW-33B - BOREHOLE IMAGE LOGS - PRELIMINARY

DATE(S) LOGGED: May 19, 2015

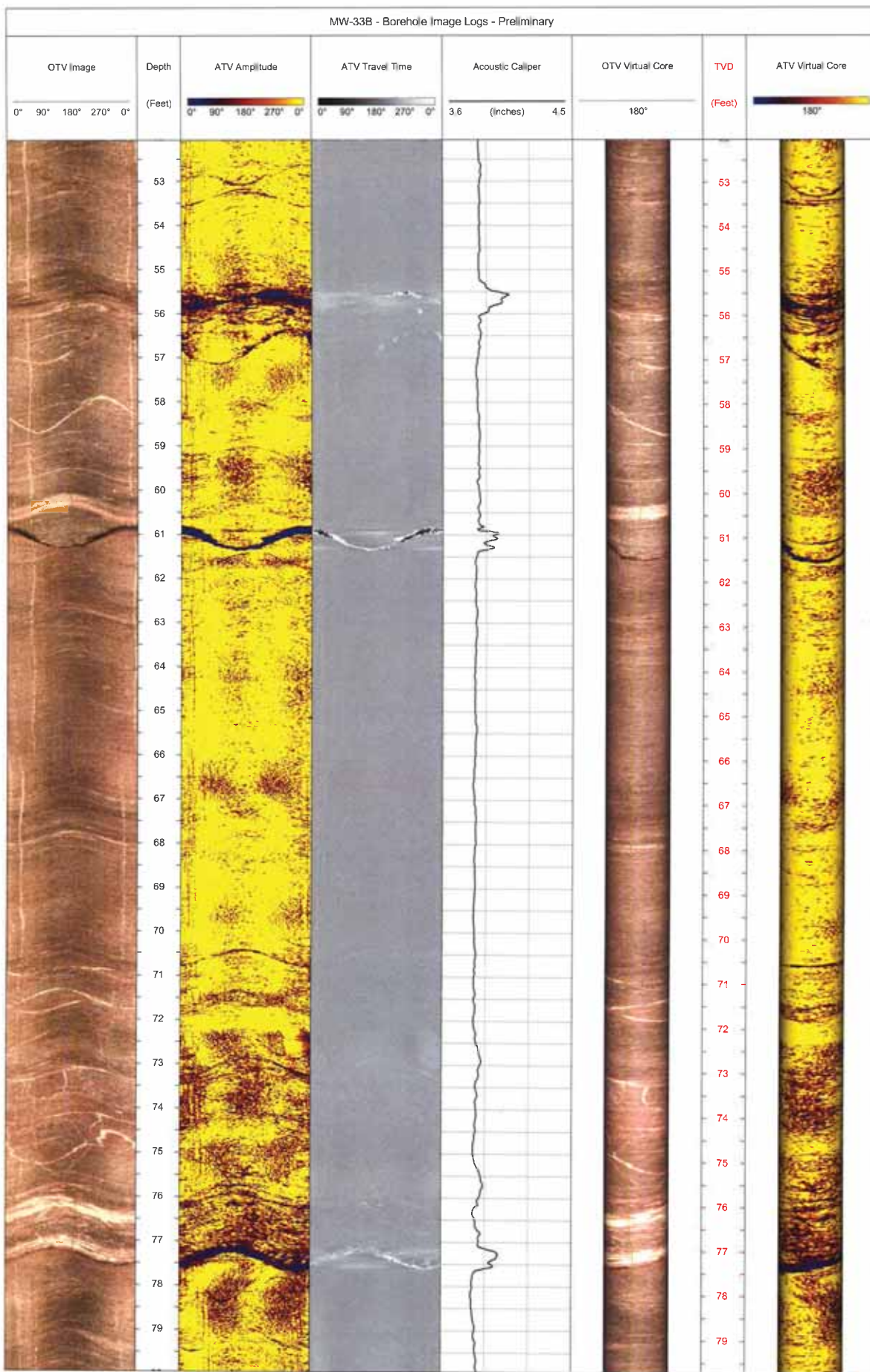
CLIENT: AECOM
PROJECT: Former Aerovox Property - Borehole Geophysical Logging
LOCATION: 740 Belleville Avenue, New Bedford, Massachusetts
LOGGING GEOPHYSICIST(S): Nick DeCristofaro & Mikko Aarnio
CLIENT REP(S) ON-SITE: Jeff Harshman
LOGS PROCESSED BY: Robert Garfield

HAGER-RICHTER FILE: 15RG09
LOG DATUM: Top of the 4-Inch Steel Casing
ORIENTATION REFERENCE: True North (Magnetic Declination = 15° West)
TOP OF CASING: 1.0 Feet Below the Ground Surface
BOREHOLE DIAMETER: 4 Inches
WATER LEVEL DEPTH: 4.8 Feet

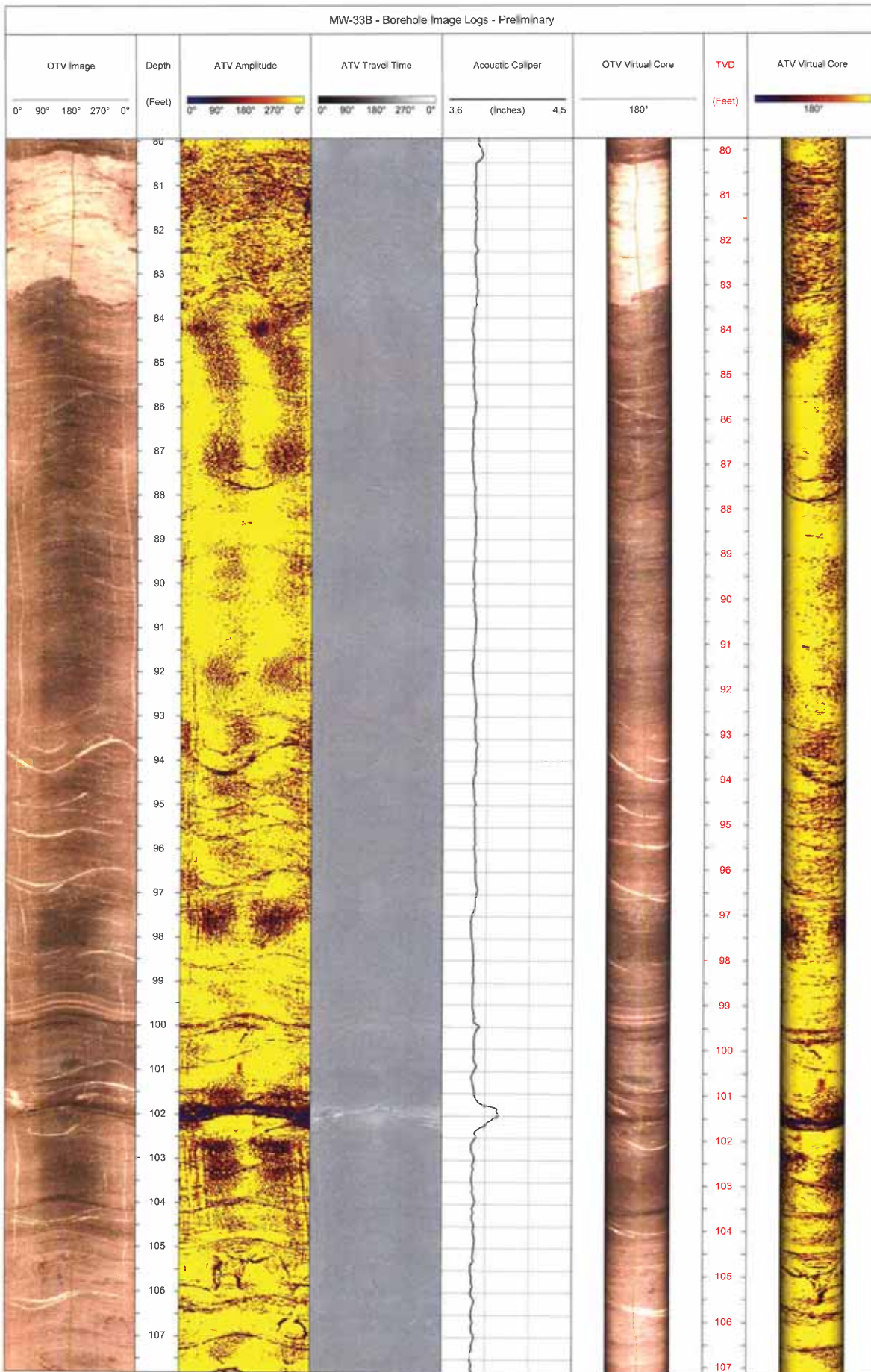
MW-33B - Borehole Image Logs - Preliminary



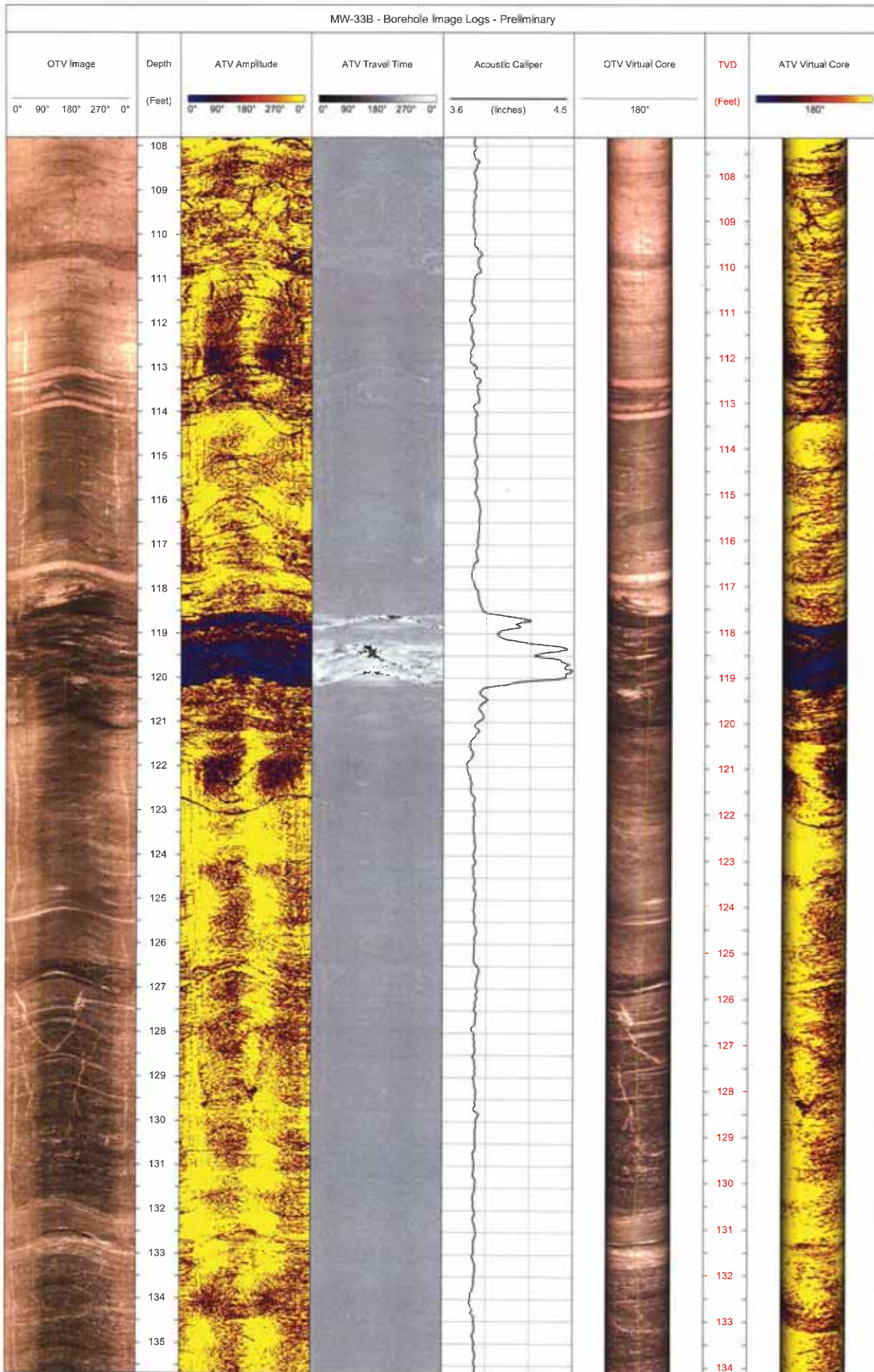
MW-33B - Borehole Image Logs - Preliminary



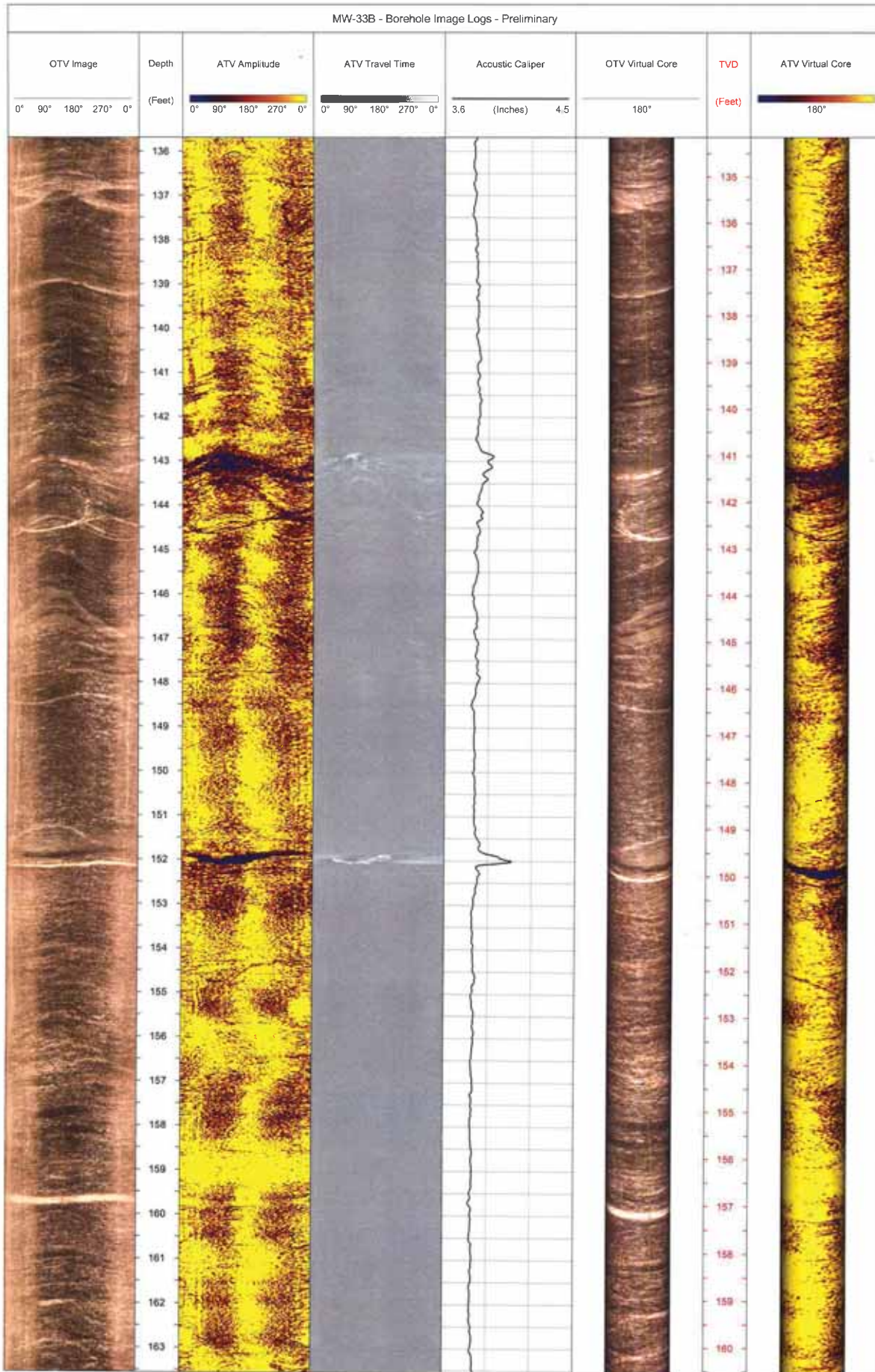
MW-33B - Borehole Image Logs - Preliminary



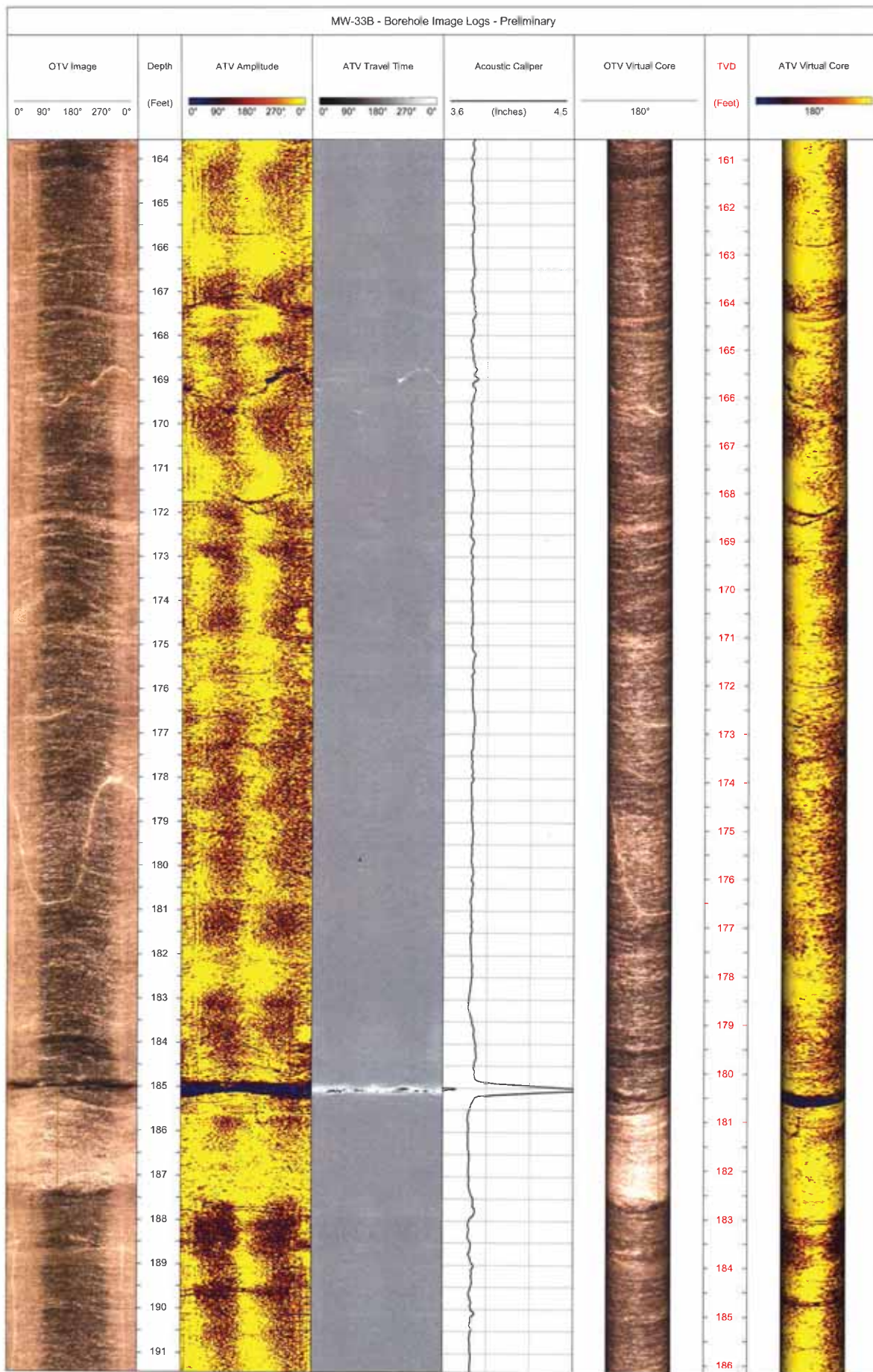
MW-33B - Borehole Image Logs - Preliminary



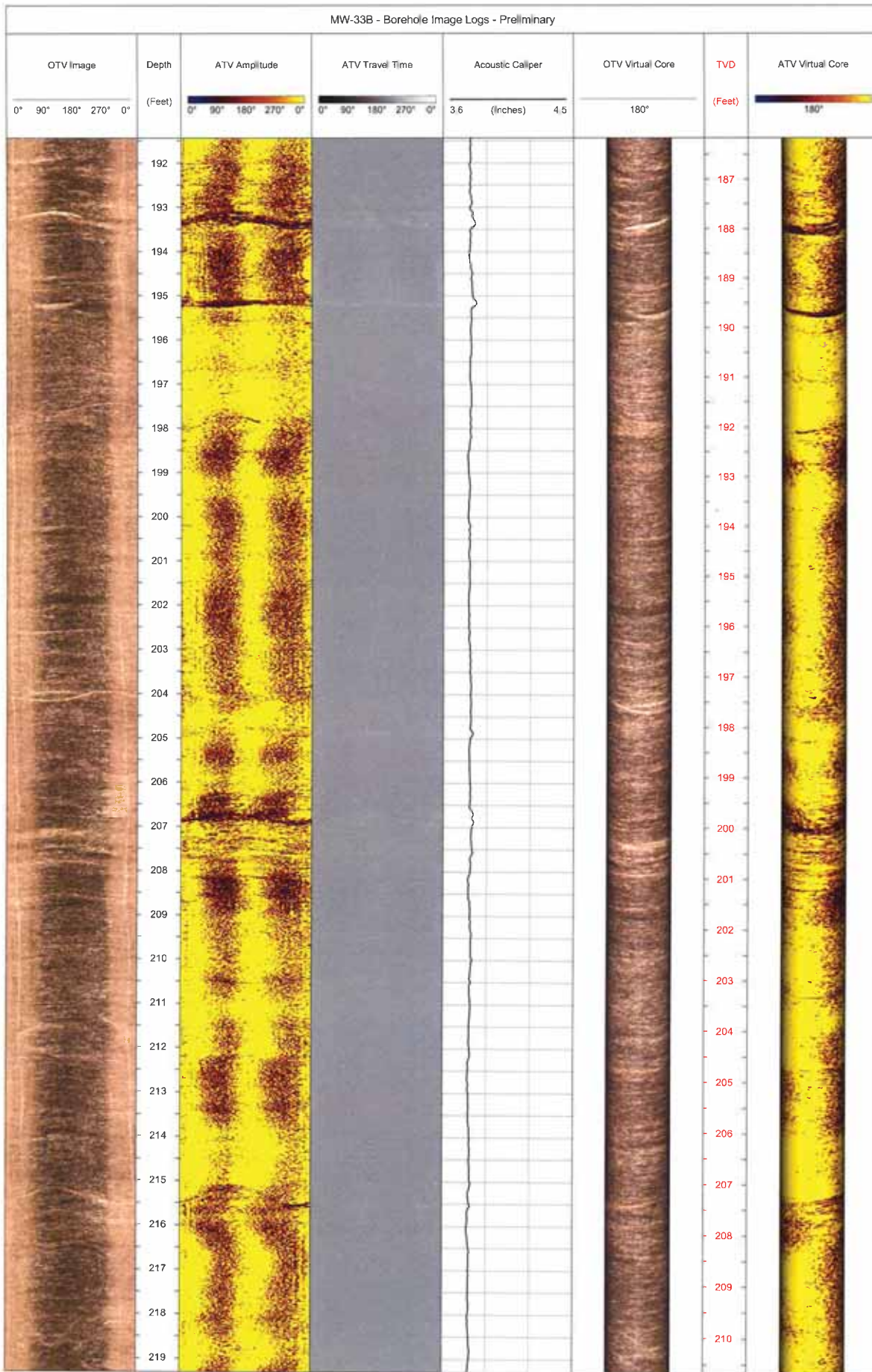
MW-33B - Borehole Image Logs - Preliminary



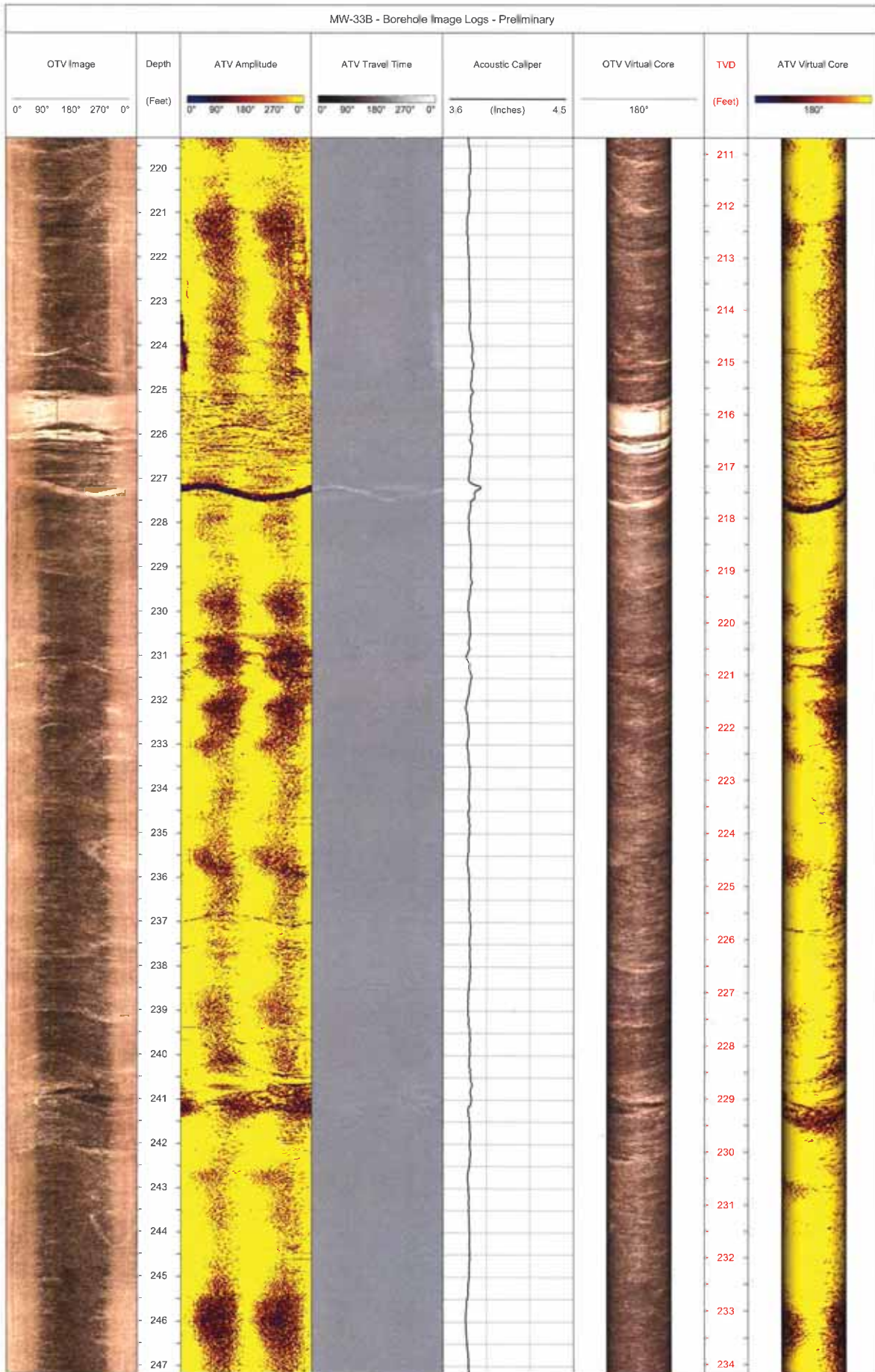
MW-33B - Borehole Image Logs - Preliminary



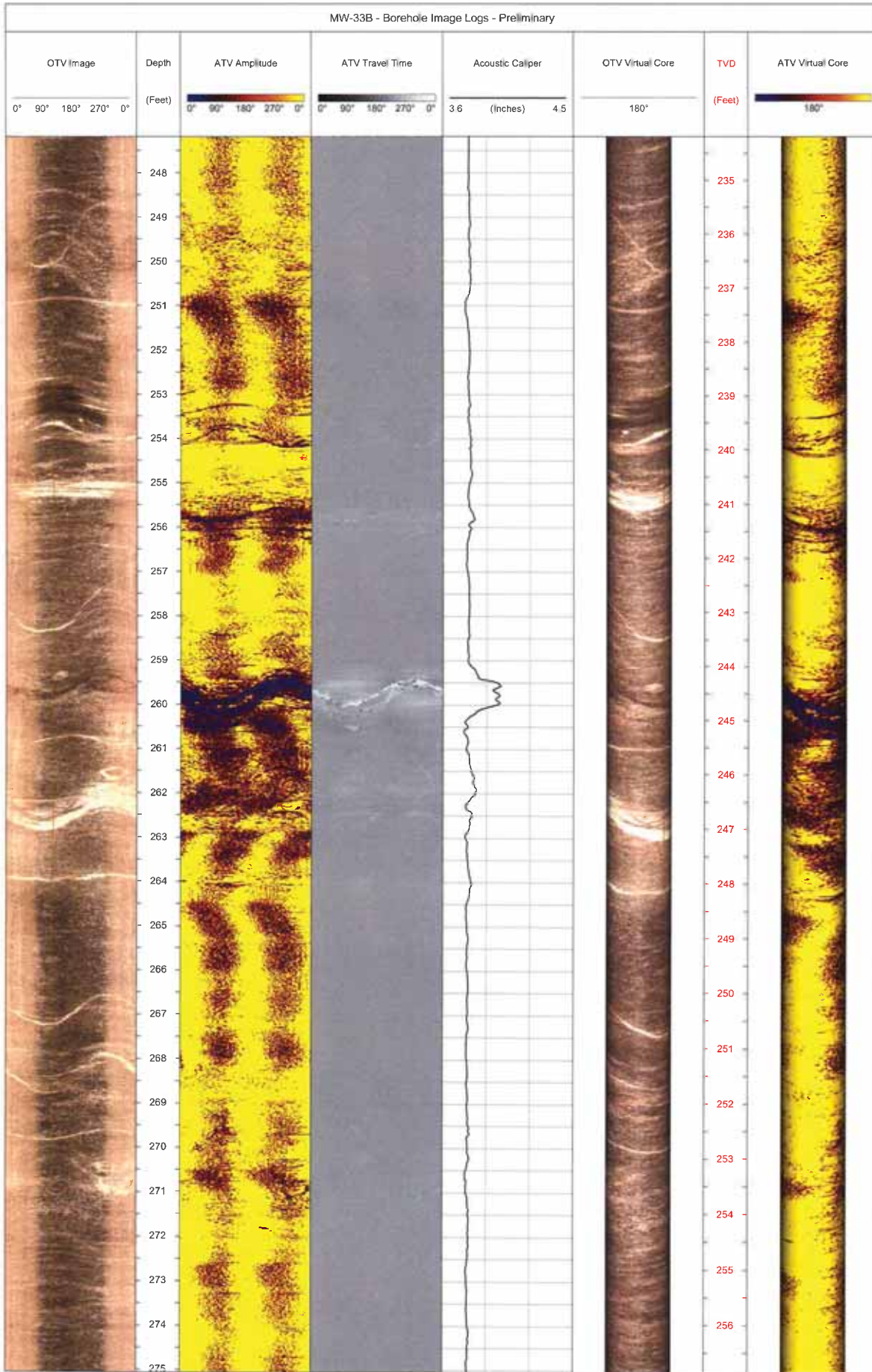
MW-33B - Borehole Image Logs - Preliminary



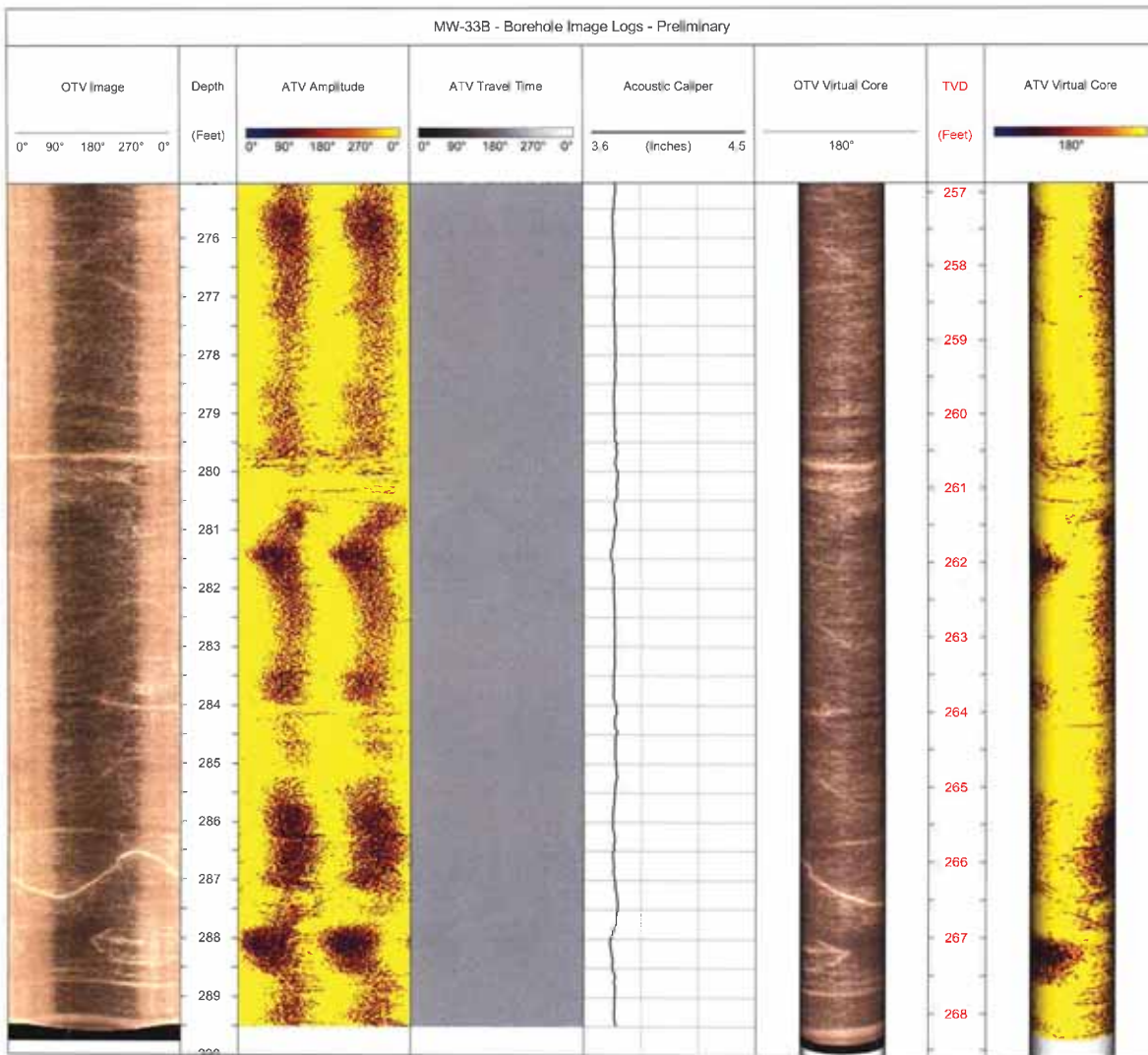
MW-33B - Borehole Image Logs - Preliminary



MW-33B - Borehole Image Logs - Preliminary



MW-33B - Borehole Image Logs - Preliminary



HAGER-RICHTER GEOSCIENCE, INC.

8 Industrial Way - D10
Salem, NH 03079
Phone: 603-893-9944
Fax: 603-893-8313

MW-33B - BOREHOLE DEVIATION LOGS

DATE(S) LOGGED: May 19, 2015

CLIENT: AECOM

HAGER-RICHTER FILE: 15RG09

PROJECT: Former Aerovox Property

LOG DATUM: Top of 4-Inch Steel Casing

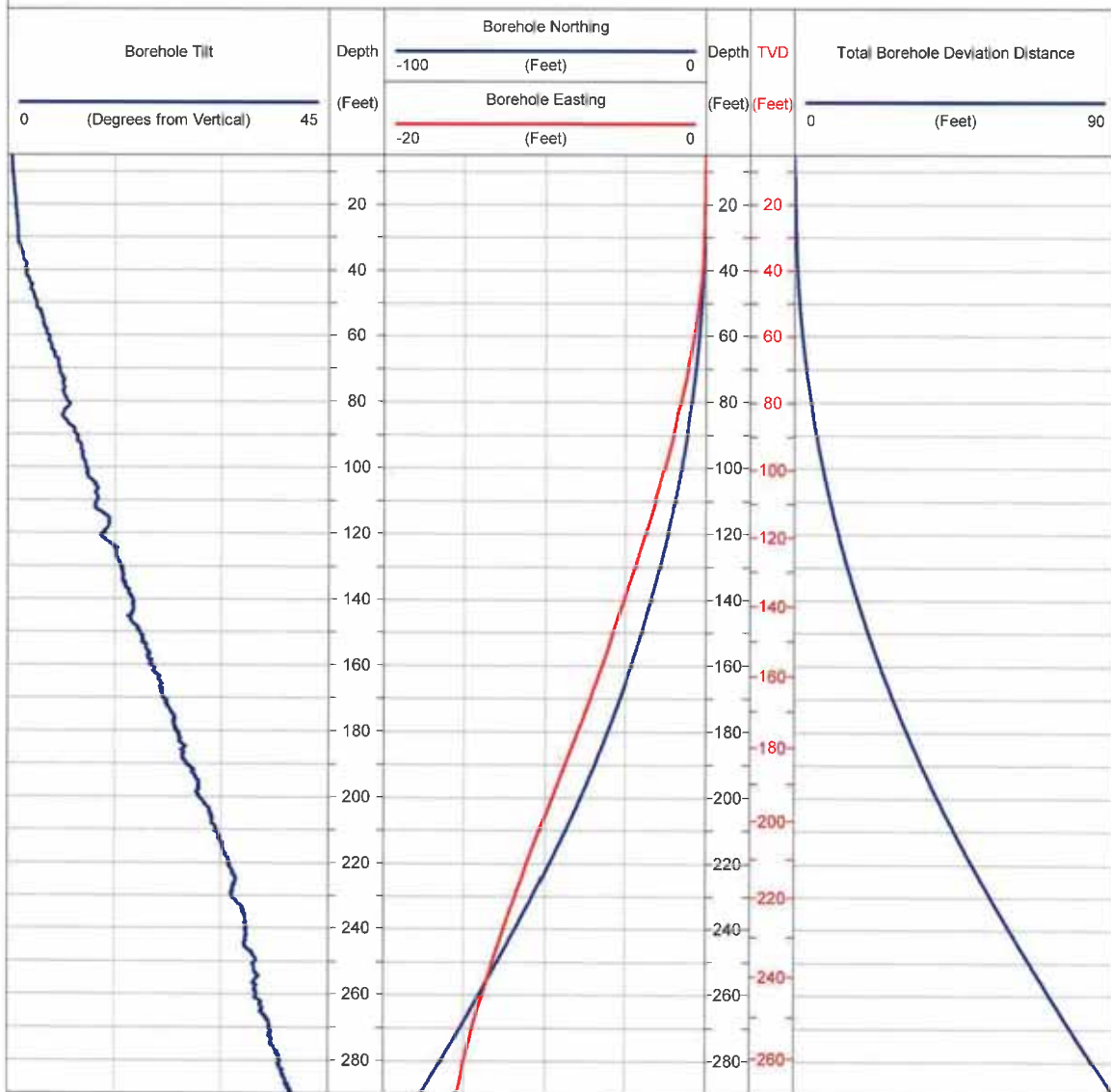
LOCATION: 740 Belleville Avenue, New Bedford, MA

ORIENTATION REFERENCE: True North

GEOPHYSICISTS: N. DeCristofaro & M. Aarnio

MAGNETIC DECLINATION: 15° West

MW-33B - Borehole Deviation Logs



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Phone: 603-893-0944
Fax: 603-893-8313

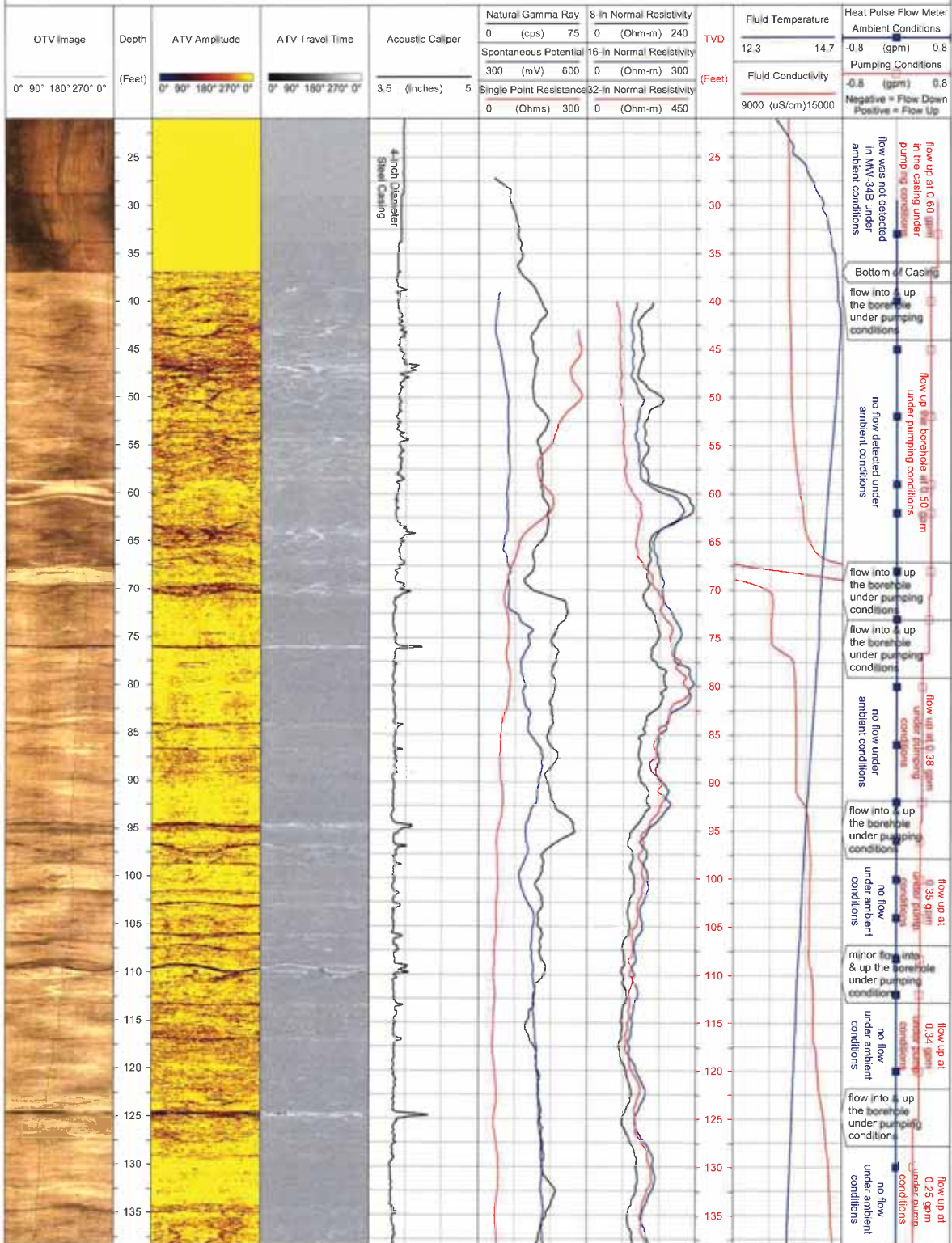
MW-34B - BOREHOLE GEOPHYSICAL LOGS - PRELIMINARY

DATE(S) LOGGED: May 20, 2015

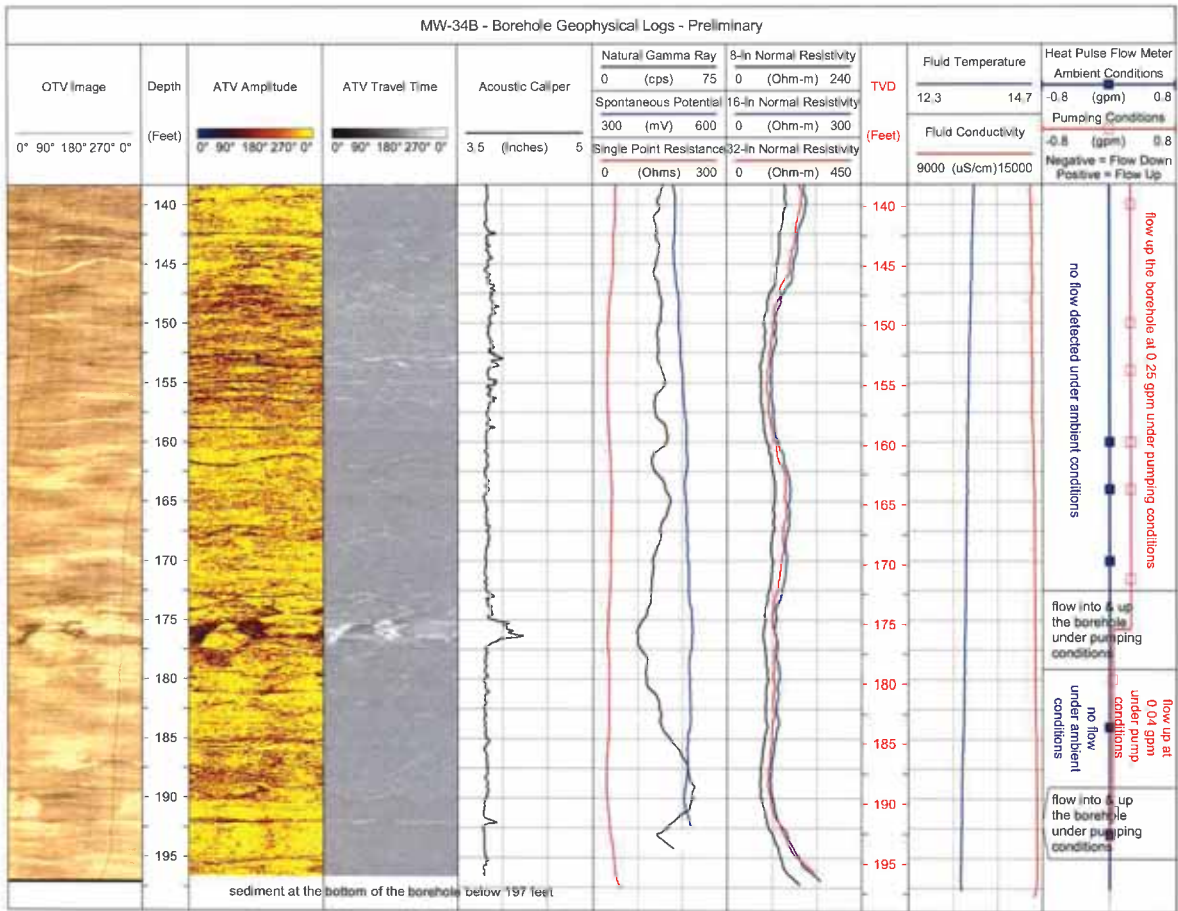
CLIENT: AECOM
PROJECT: Former Aerovox Property
LOCATION: 740 Belleville Avenue, New Bedford, Massachusetts
LOGGING GEOPHYSICIST(S): Nick DeCristofaro & Mikko Aarnio
CLIENT REP(S) ON-SITE: Jeff Harshman
LOGS PROCESSED BY: Robert Garfield

HAGER-RICHTER FILE: 15RG09
LOG DATUM: Top of the 4-inch Steel Casing
ORIENTATION REFERENCE: True North (Magnetic Declination = 15° West)
TOP OF CASING: 1.0 Feet Below the Ground Surface
BOREHOLE DIAMETER: 4 Inches
WATER LEVEL DEPTH: 3.2 Feet

MW-34B - Borehole Geophysical Logs - Preliminary



MW-34B - Borehole Geophysical Logs - Preliminary



**HAGER-RICHTER
GEOSCIENCE, INC.**

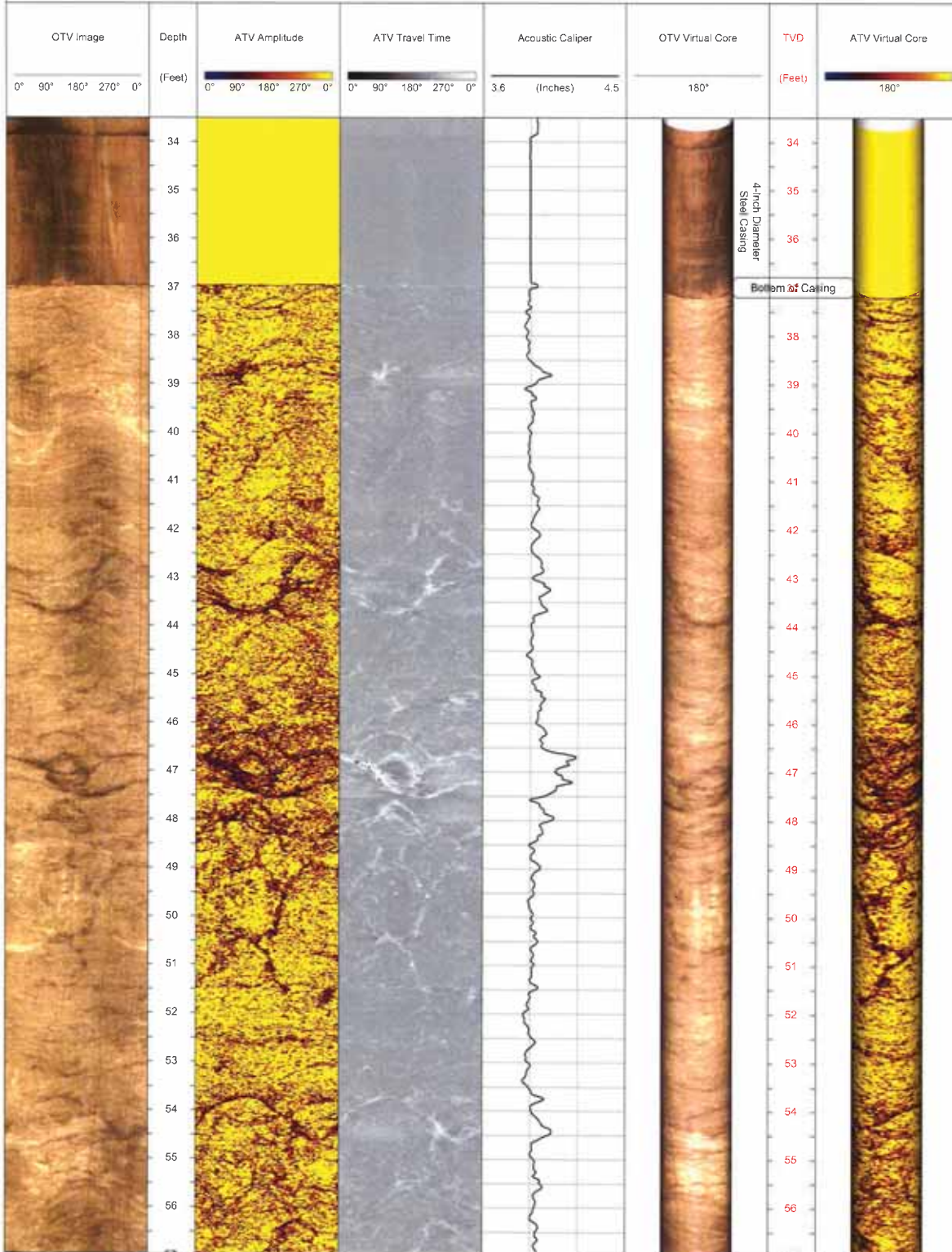
8 Industrial Way - D10
Salem, NH 03079
Phone: 603-893-9944
Fax: 603-893-8313

MW-34B - BOREHOLE IMAGE LOGS - PRELIMINARY

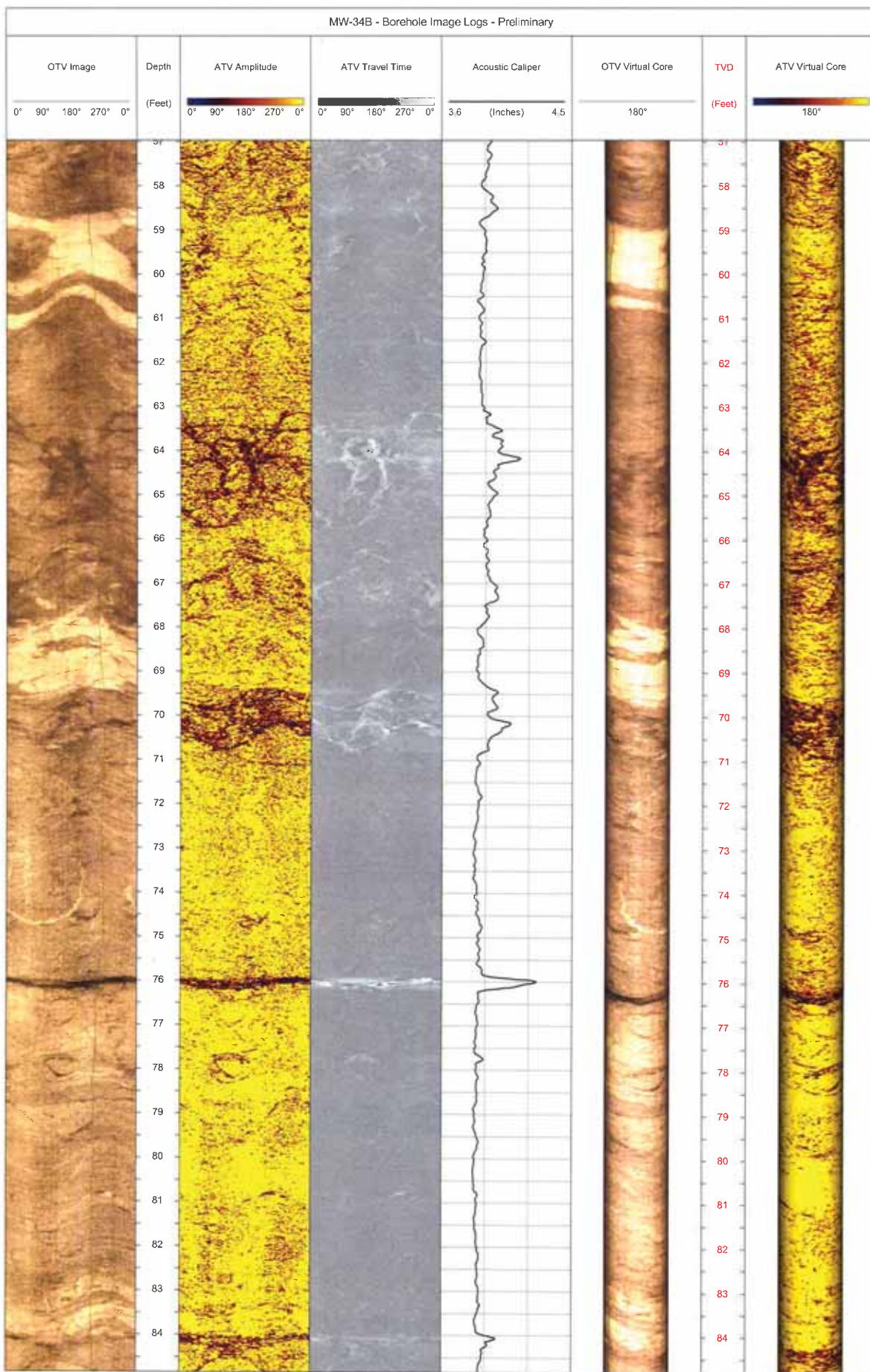
DATE(S) LOGGED: May 20, 2015

CLIENT: AECOM	HAGER-RICHTER FILE: 15RG09
PROJECT: Former Aerovox Property - Borehole Geophysical Logging	LOG DATUM: Top of the 4-Inch Steel Casing
LOCATION: 740 Belleville Avenue, New Bedford, Massachusetts	ORIENTATION REFERENCE: True North (Magnetic Declination = 15° West)
LOGGING GEOPHYSICIST(S): Nick DeCristofaro & Mikko Aarnio	TOP OF CASING: 1.0 Feet Below the Ground Surface
CLIENT REP(S) ON-SITE: Jeff Harshman	BOREHOLE DIAMETER: 4 Inches
LOGS PROCESSED BY: Robert Garfield	WATER LEVEL DEPTH: 3.2 Feet

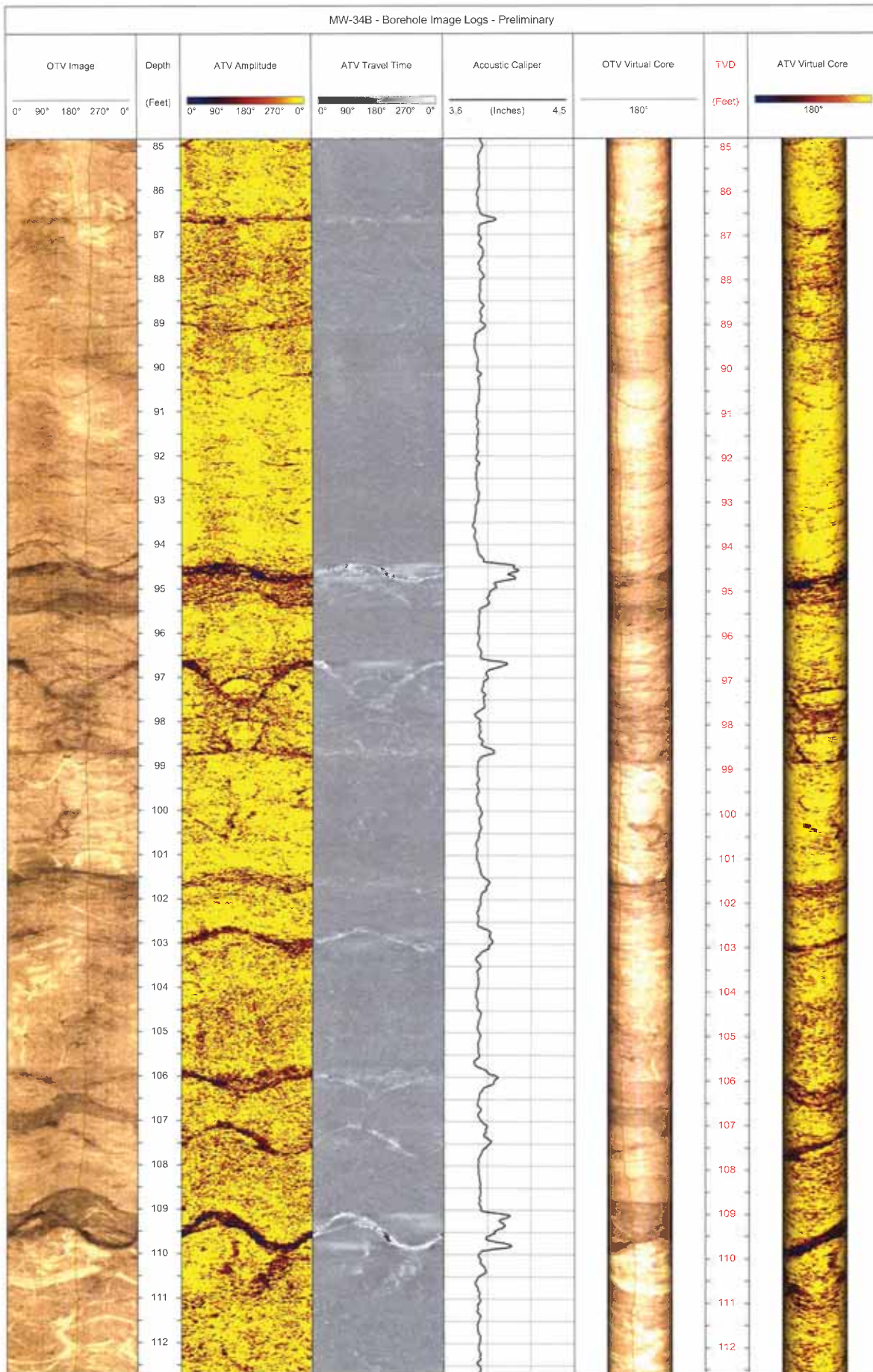
MW-34B - Borehole Image Logs - Preliminary



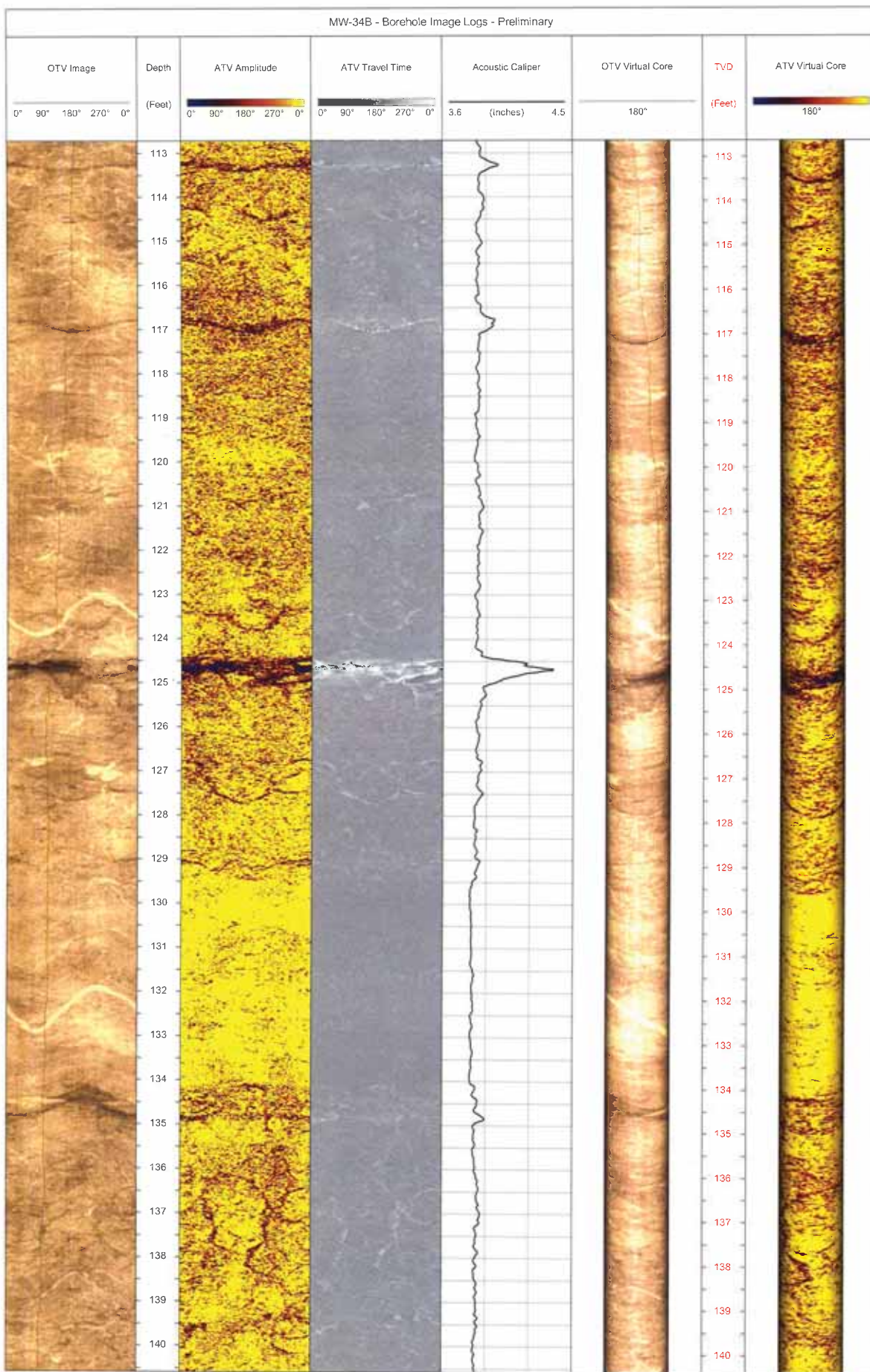
MW-34B - Borehole Image Logs - Preliminary



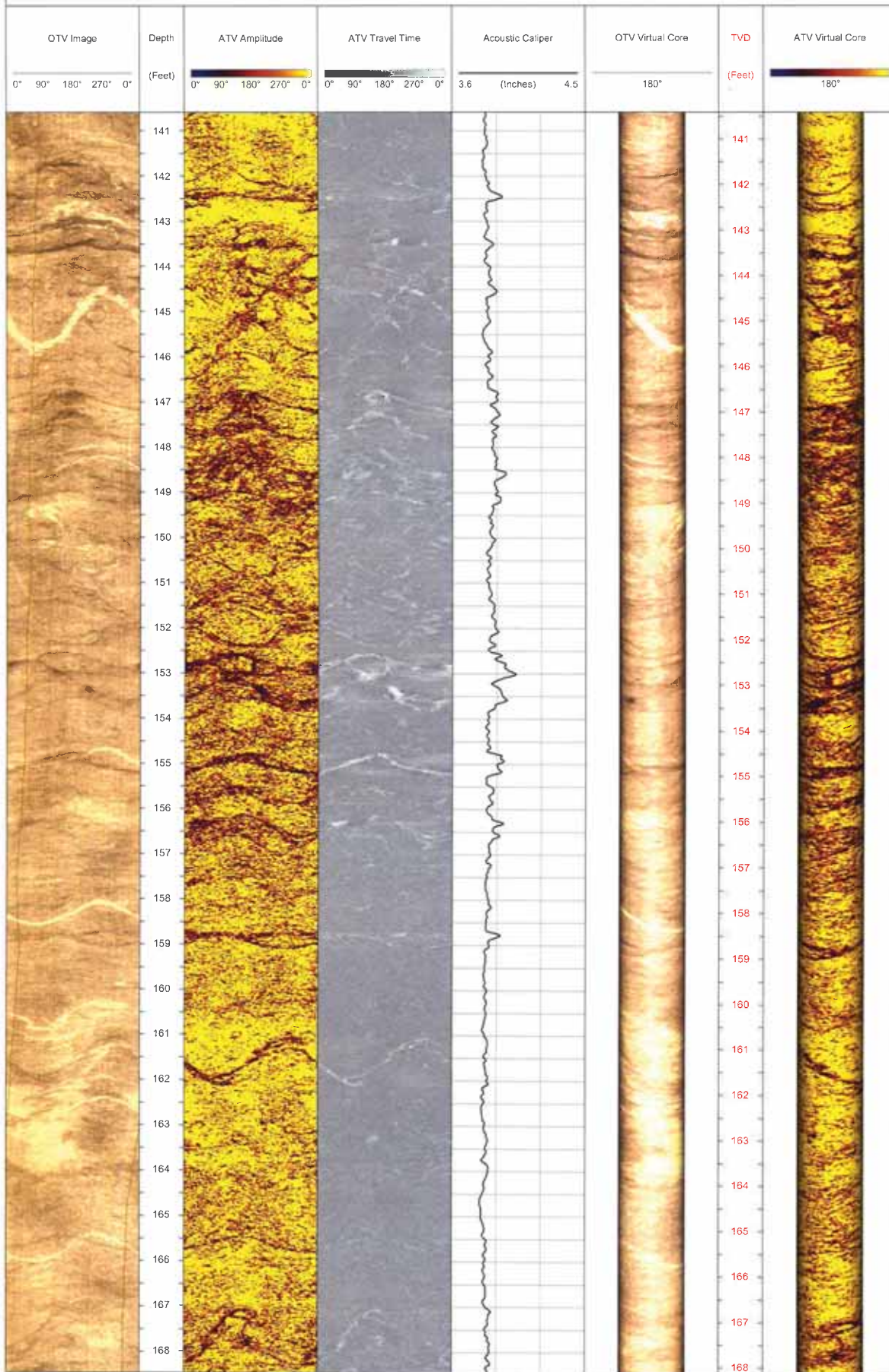
MW-34B - Borehole Image Logs - Preliminary



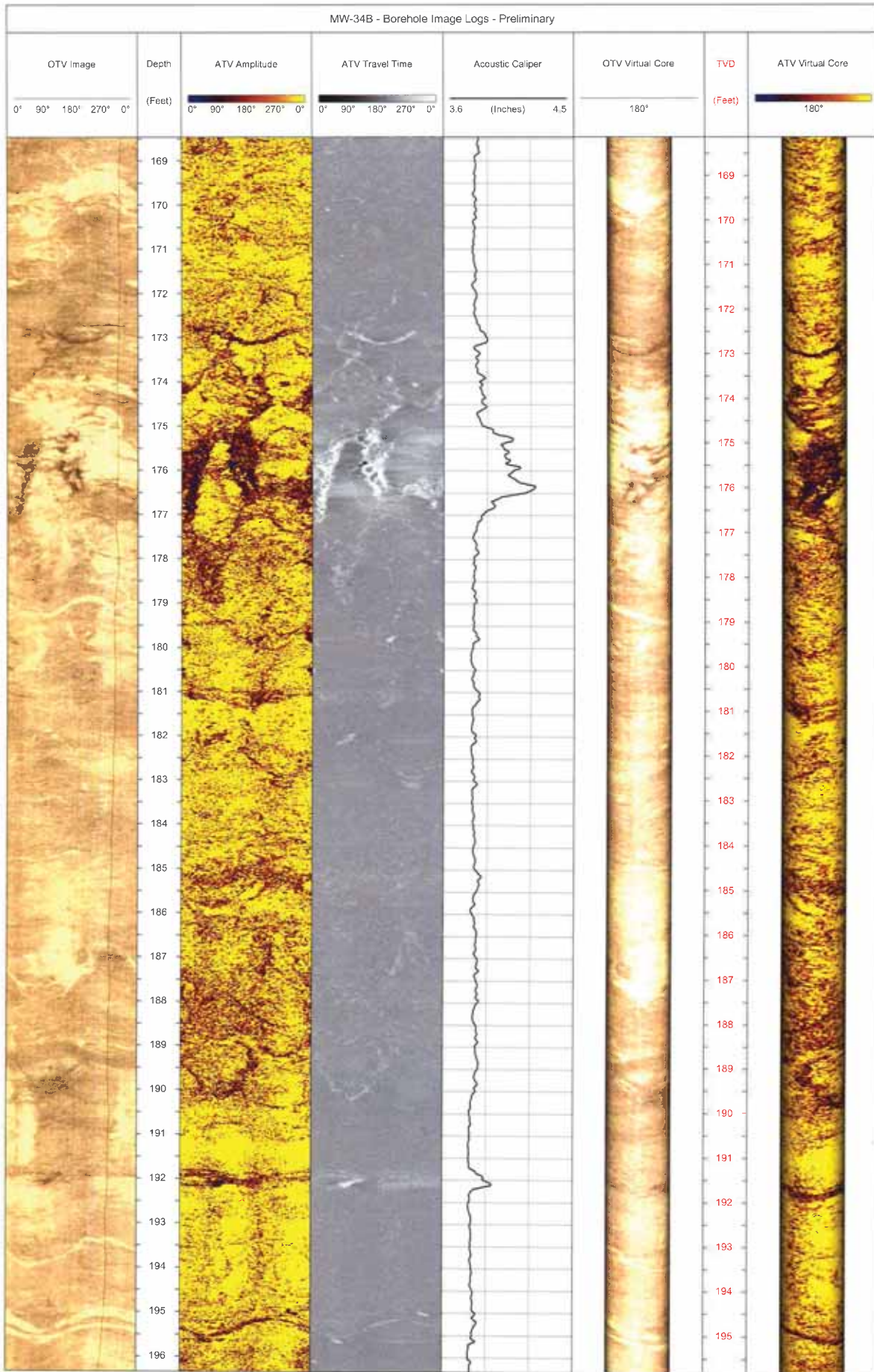
MW-34B - Borehole Image Logs - Preliminary



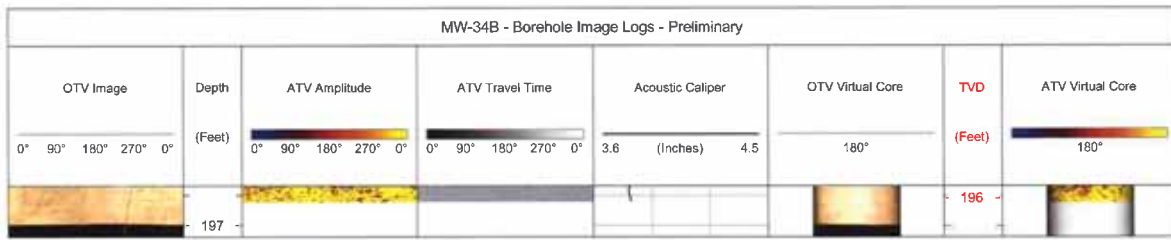
MW-34B - Borehole Image Logs - Preliminary



MW-34B - Borehole Image Logs - Preliminary



MW-34B - Borehole Image Logs - Preliminary



**HAGER-RICHTER
GEOSCIENCE, INC.**

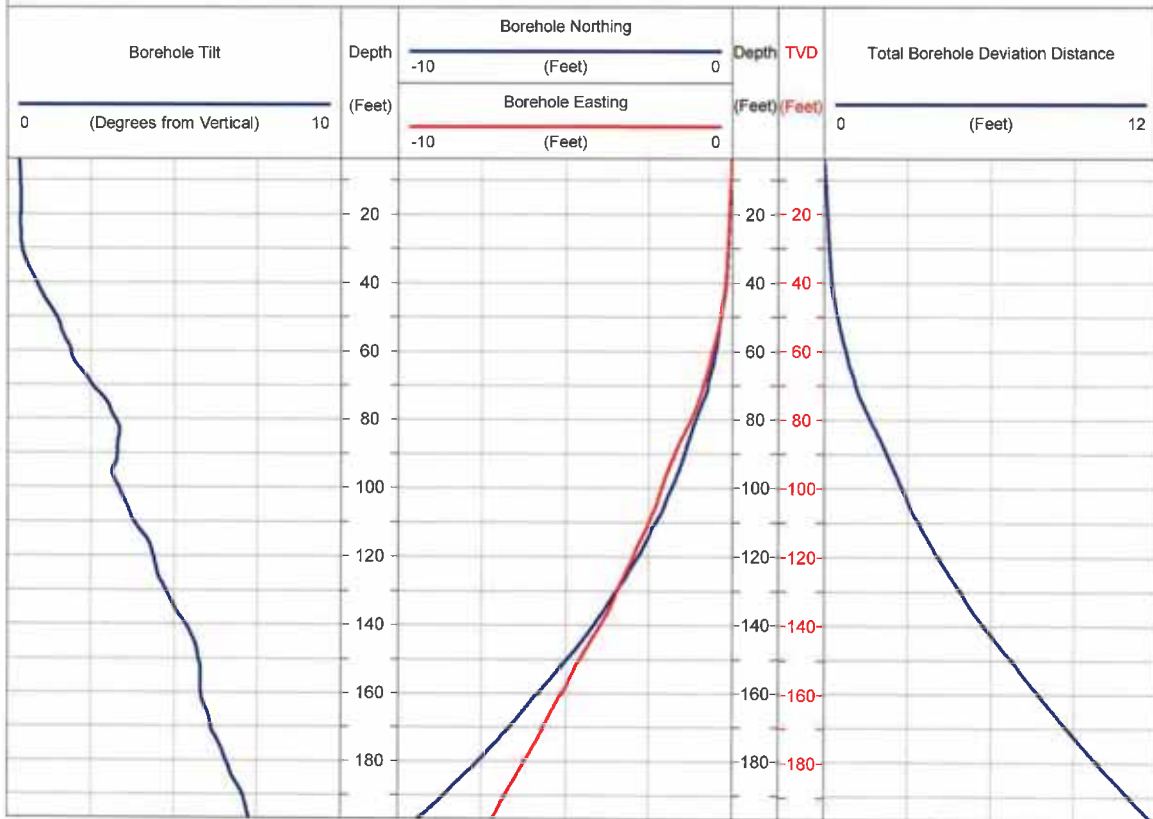
8 Industrial Way - D10
Salem, NH 03079
Phone: 603-893-9944
Fax: 603-893-8313

MW-34B - BOREHOLE DEVIATION LOGS

DATE(S) LOGGED: May 20, 2015

CLIENT: AECOM HAGER-RICHTER FILE: 15RG09
 PROJECT: Former Aerovox Property LOG DATUM: Top of 4-Inch Steel Casing
 LOCATION: 740 Belleville Avenue, New Bedford, MA ORIENTATION REFERENCE: True North
 GEOPHYSICISTS: N. DeCristofaro & M. Aarnio MAGNETIC DECLINATION: 15° West

MW-34B - Borehole Deviation Logs



APPENDIX J

Pump Test Figures

Figure J-1
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-2B

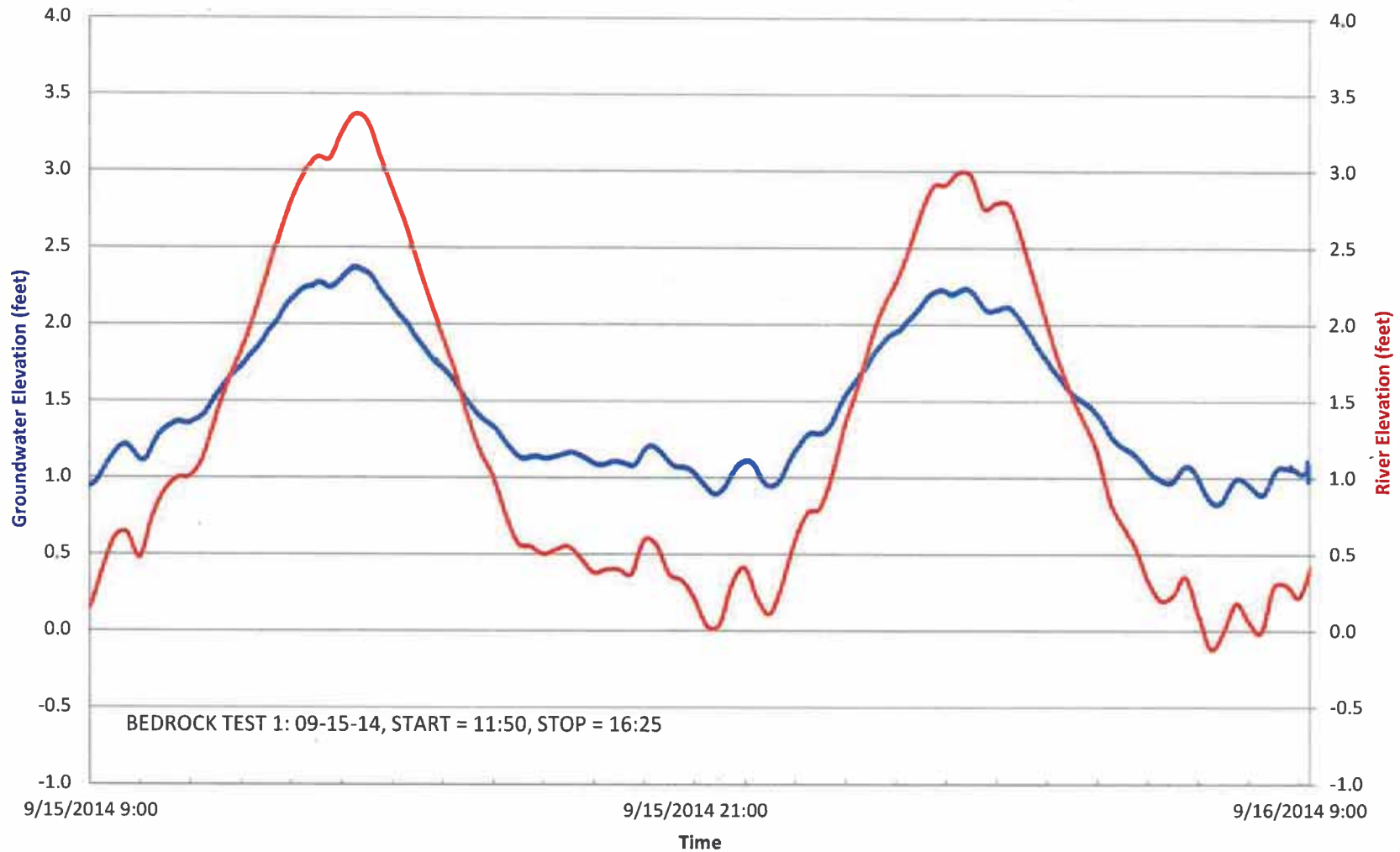


Figure J-2
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-4B

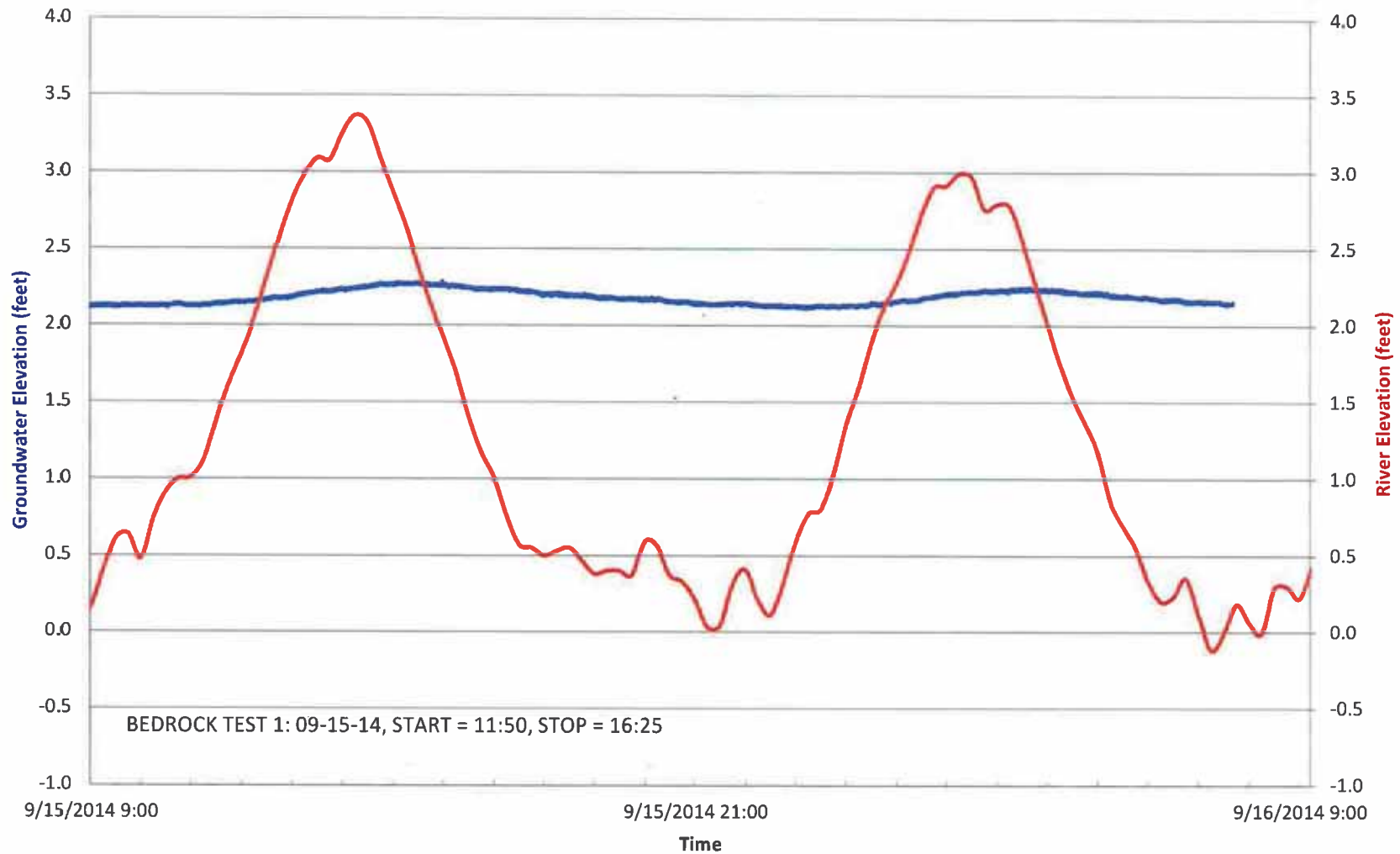


Figure J-3
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-10D

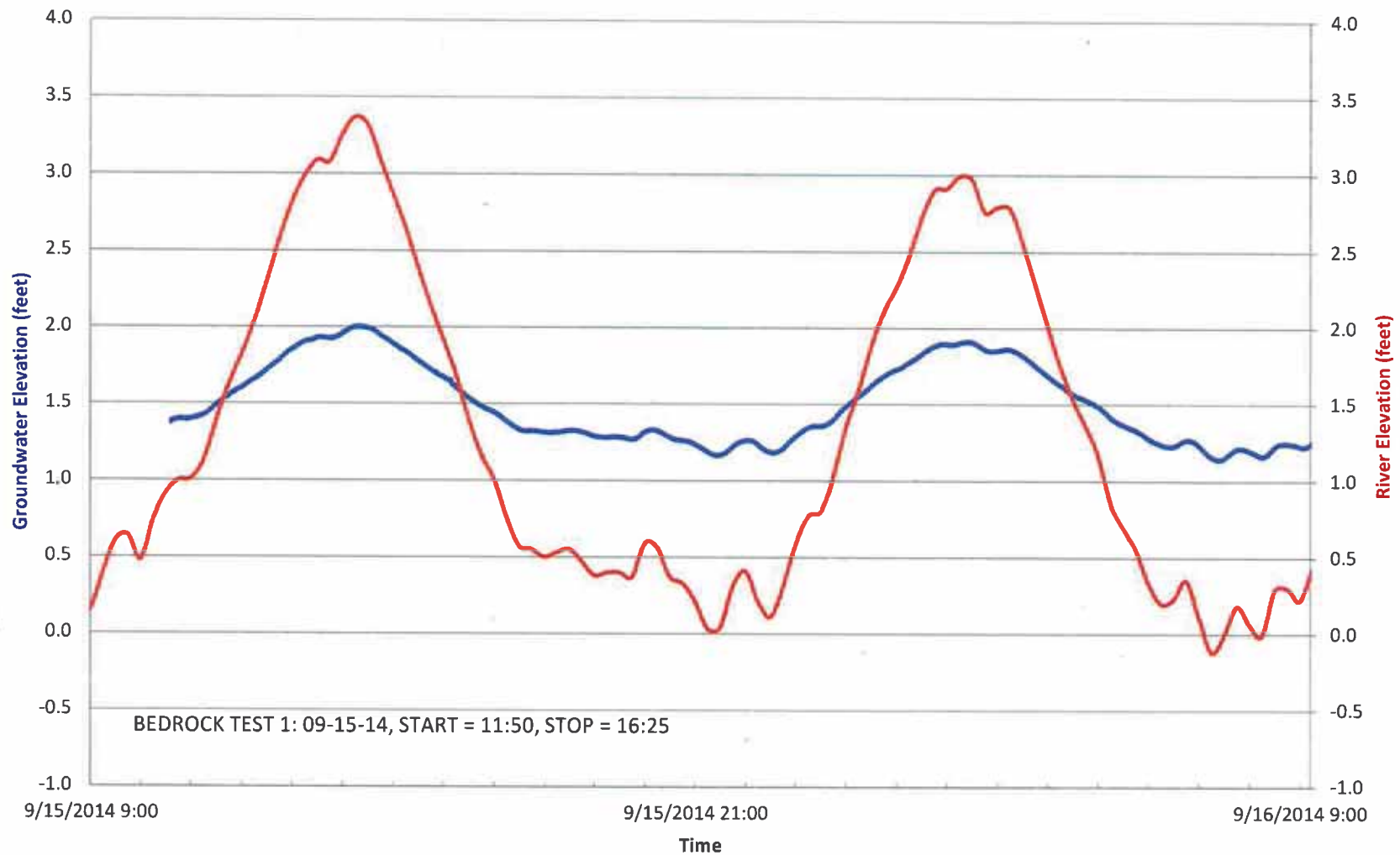


Figure J-4
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-13D

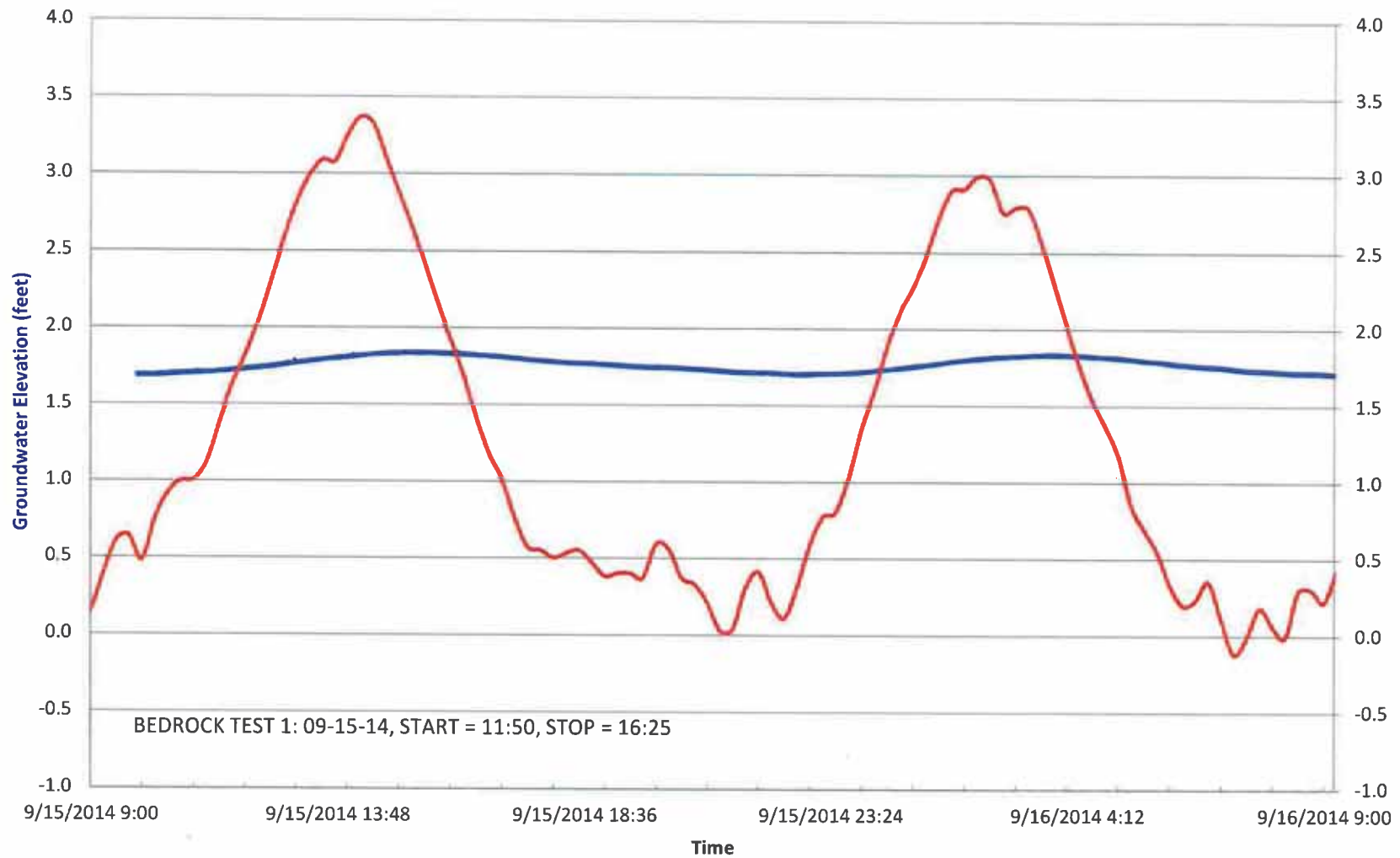


Figure J-5
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-15B

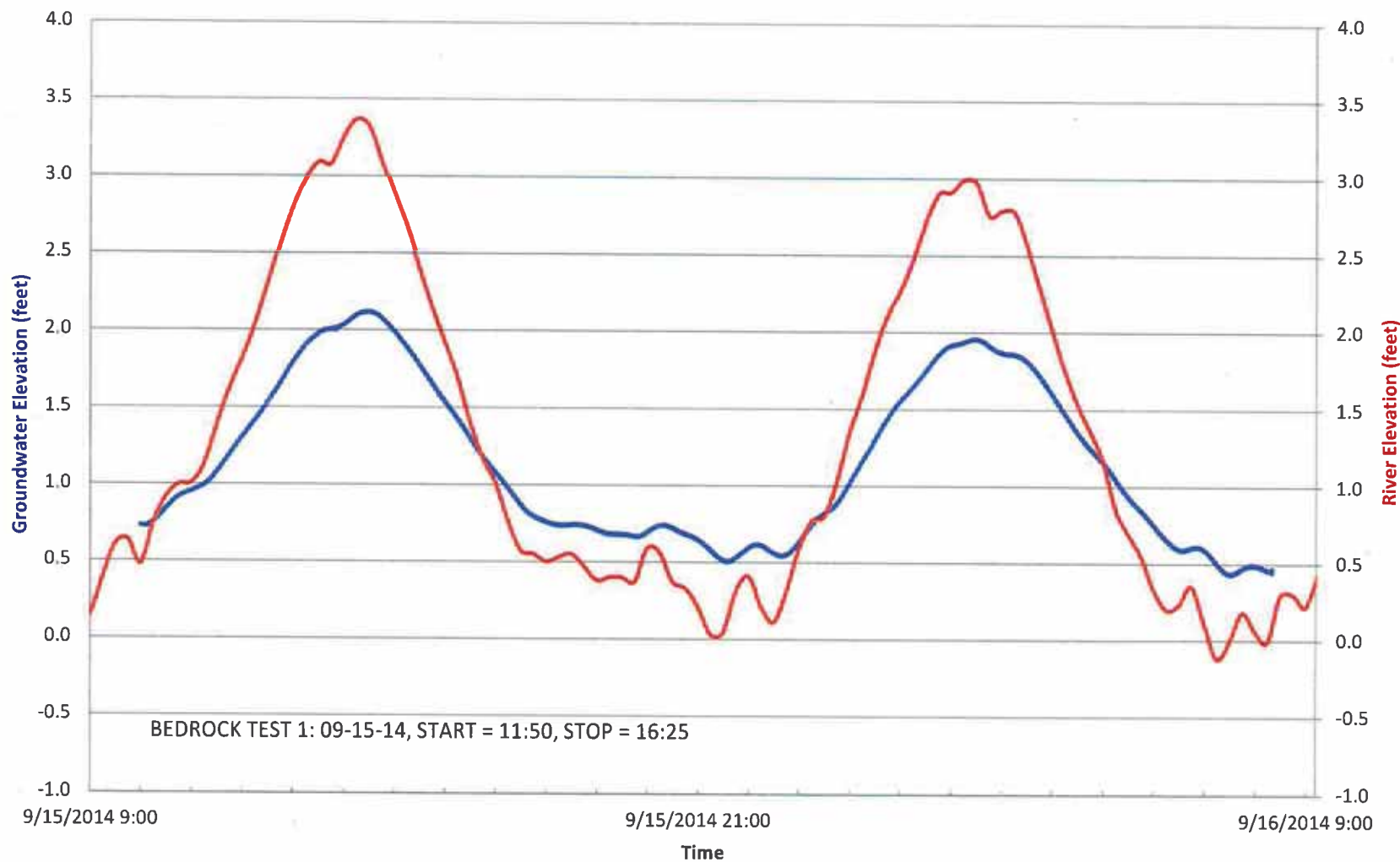


Figure J-6
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-17B

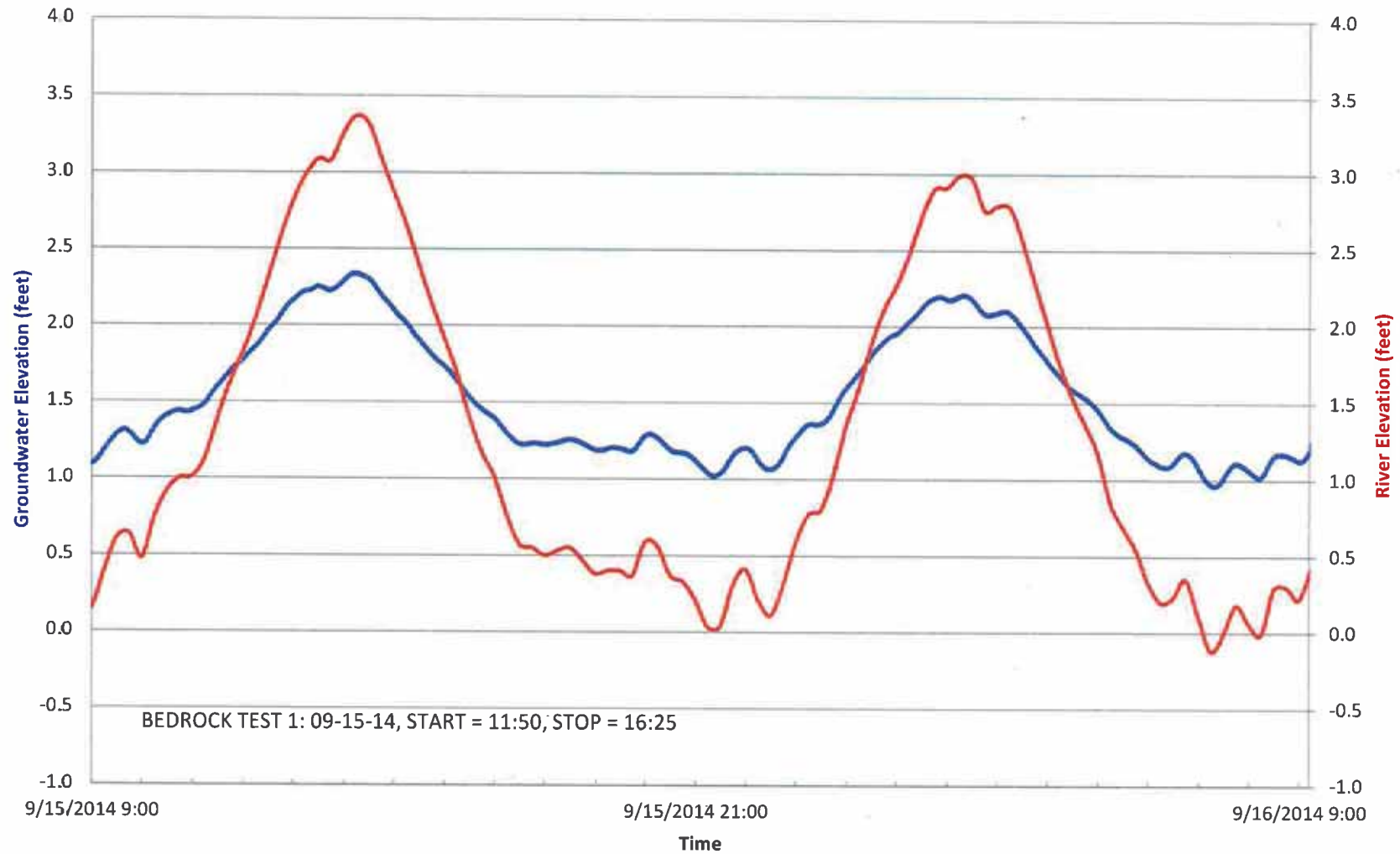


Figure J-7
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-20B

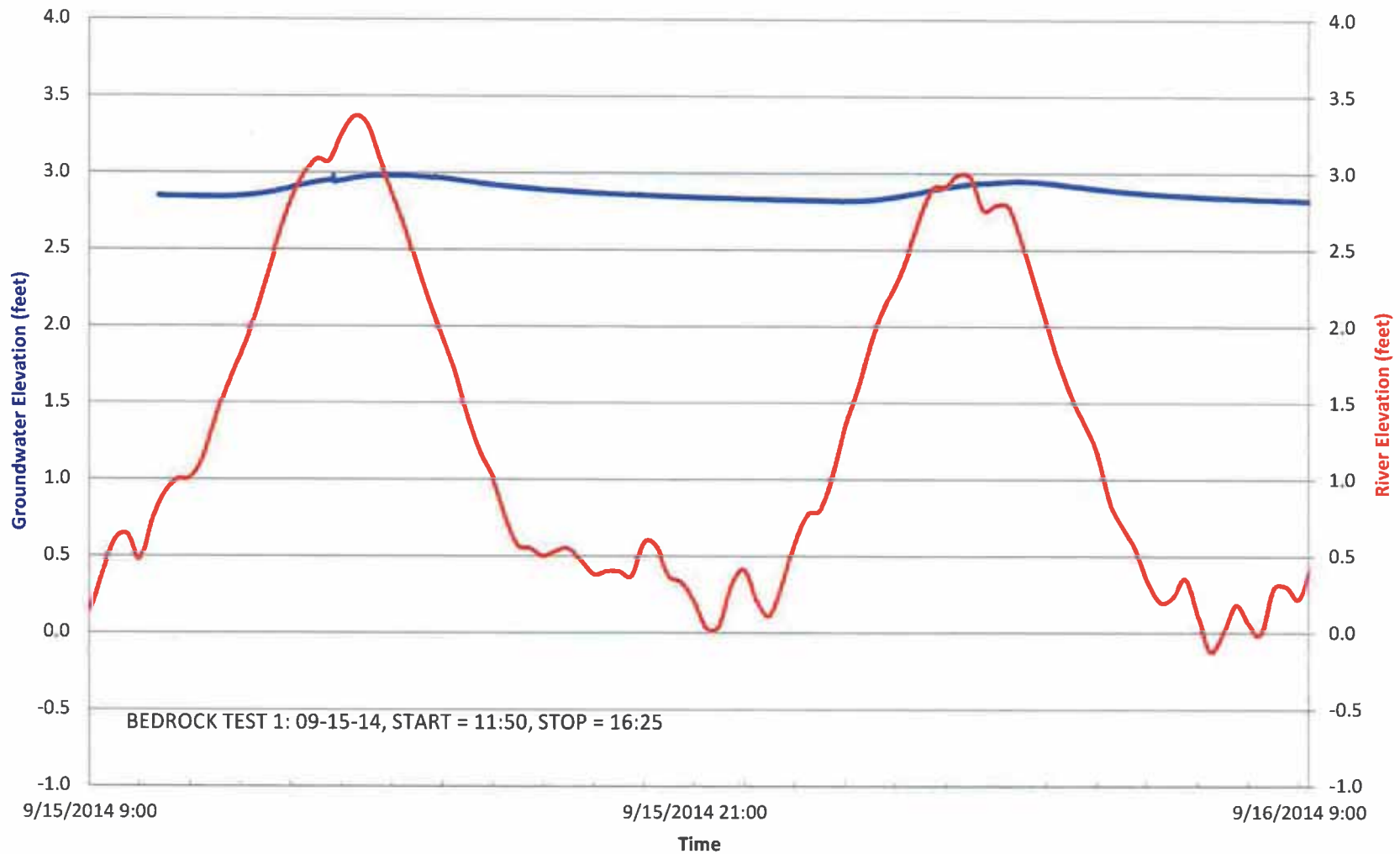


Figure J-8
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-21B

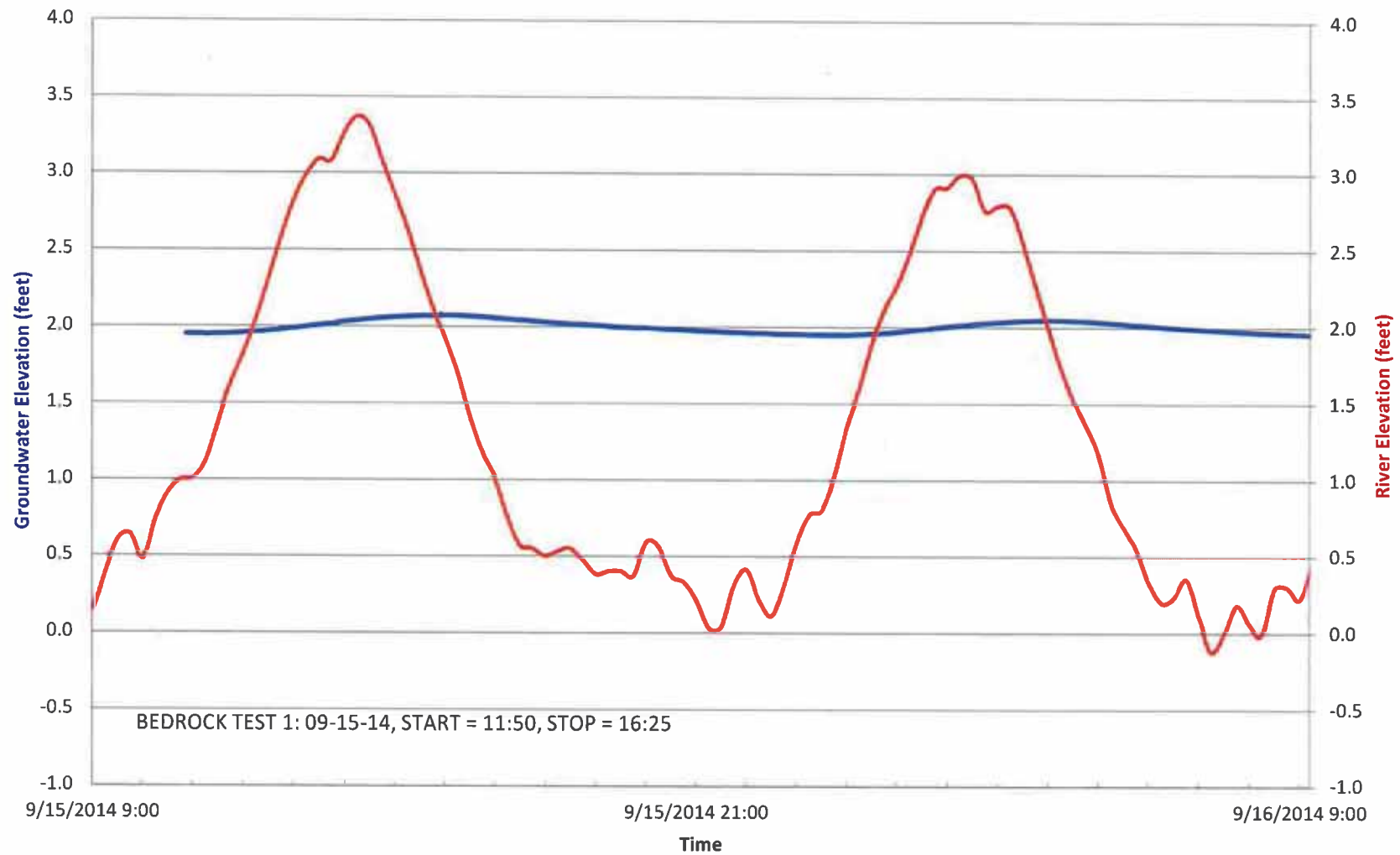


Figure J-9
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-23B

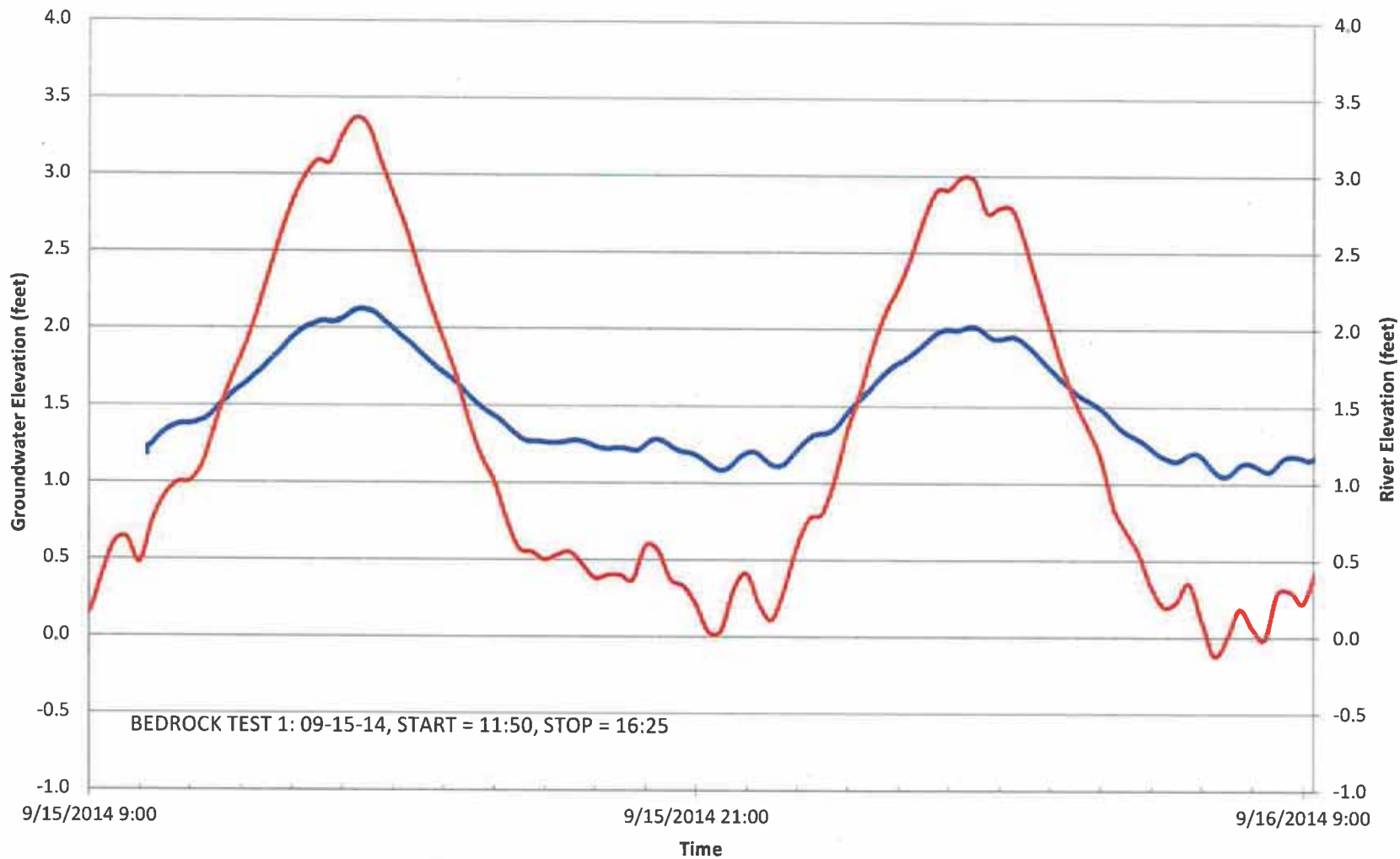


Figure J-10
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-27B

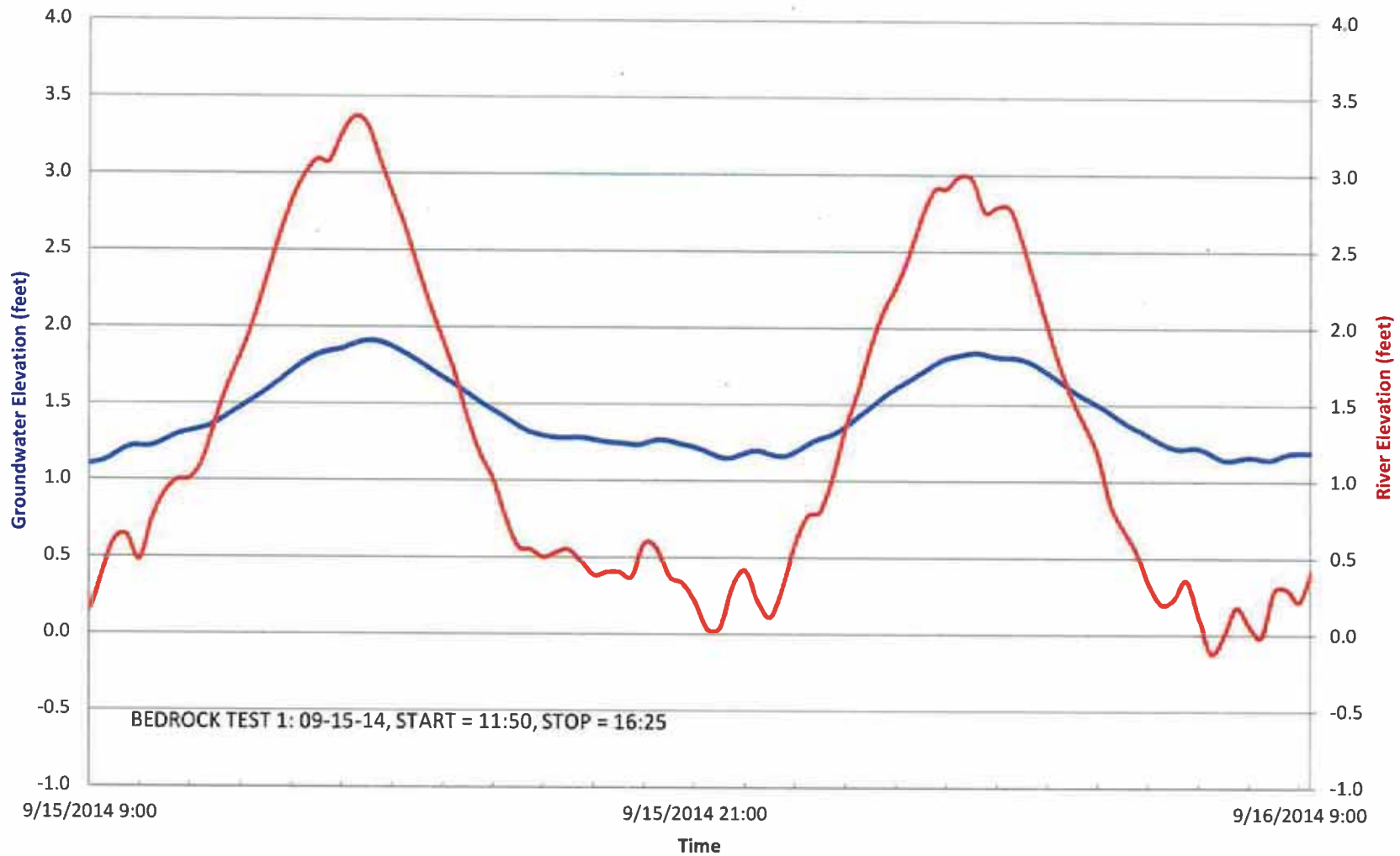


Figure J-11
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-28B

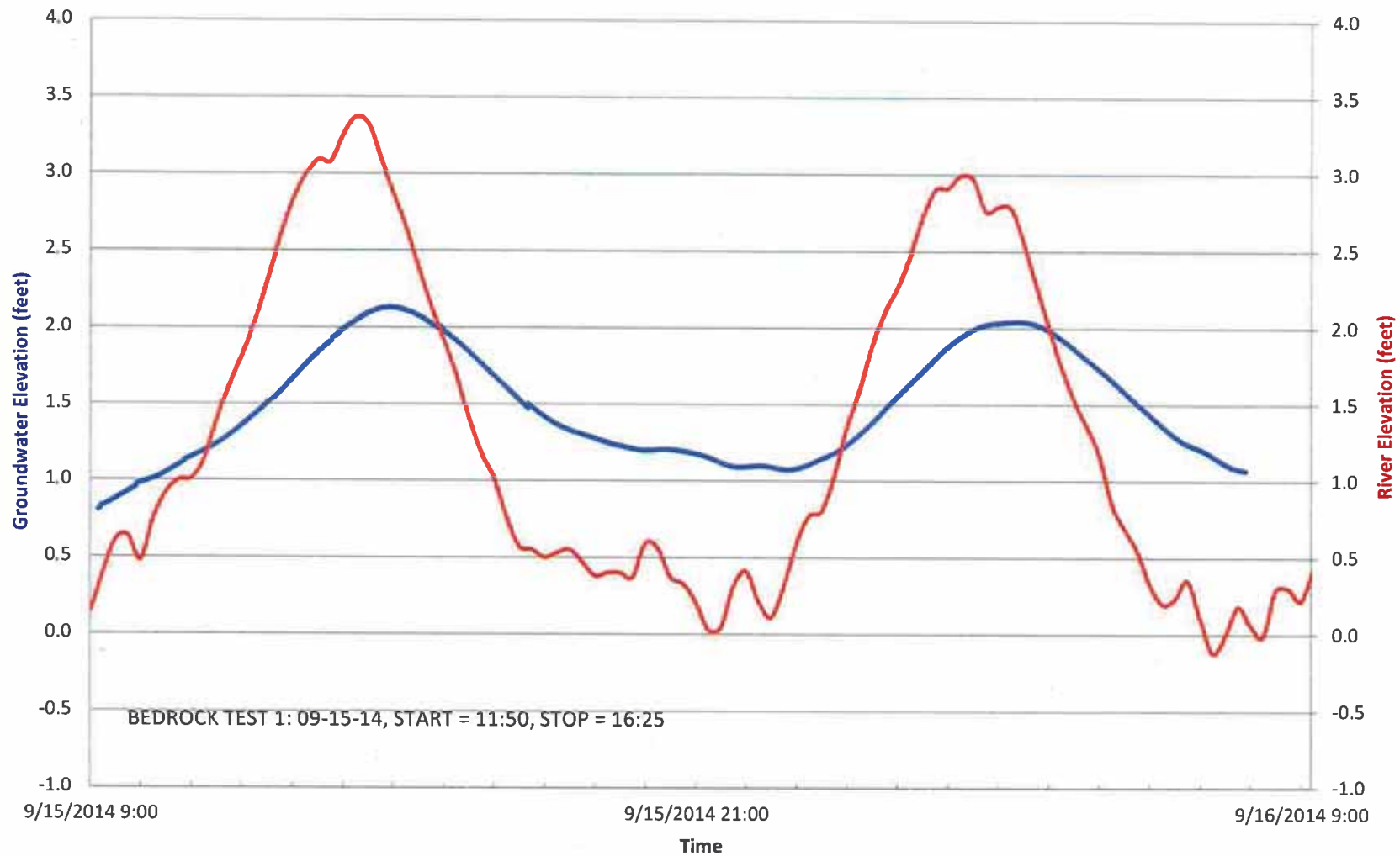


Figure J-12
MW-26B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-103B

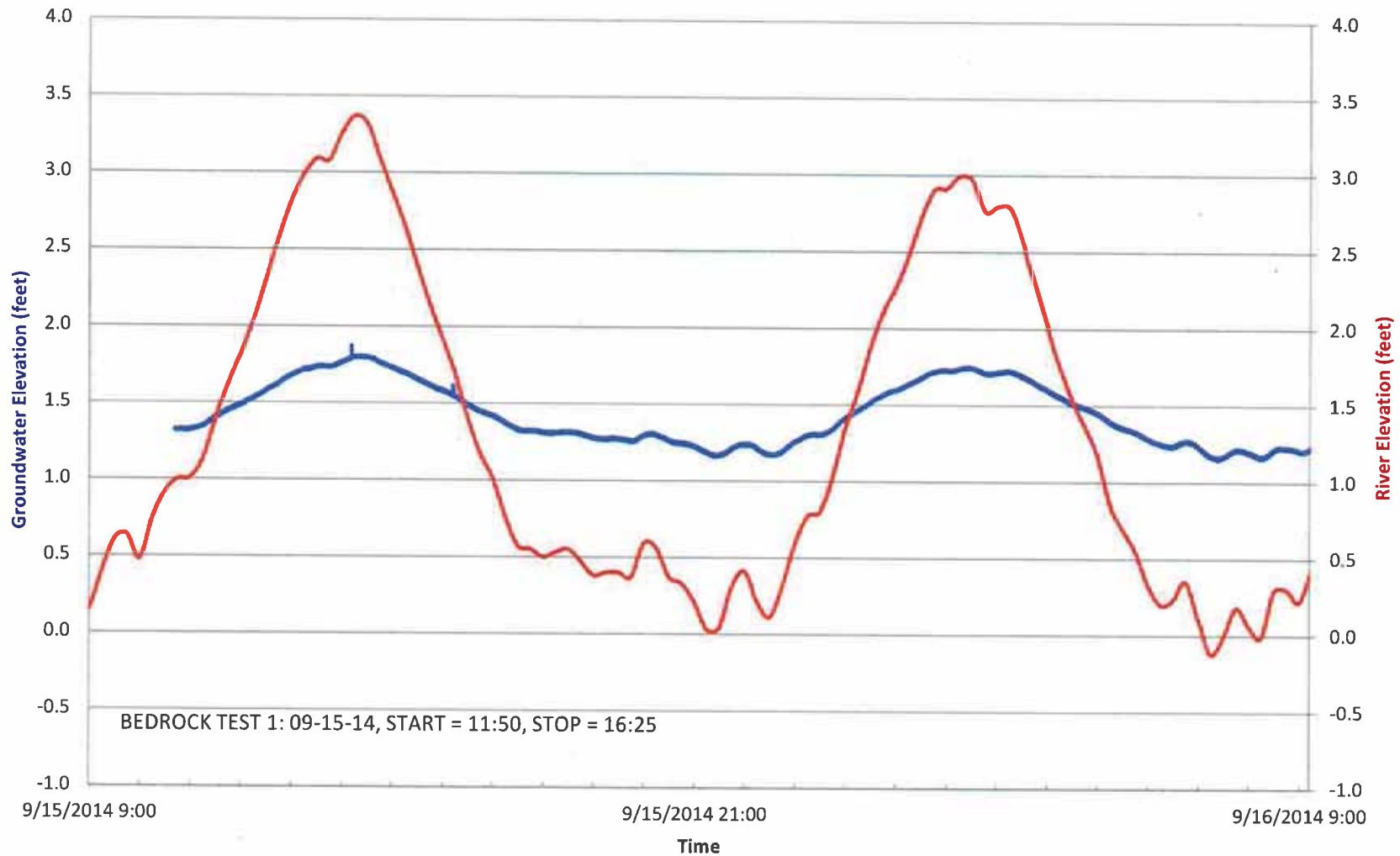


Figure J-13A
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-6B

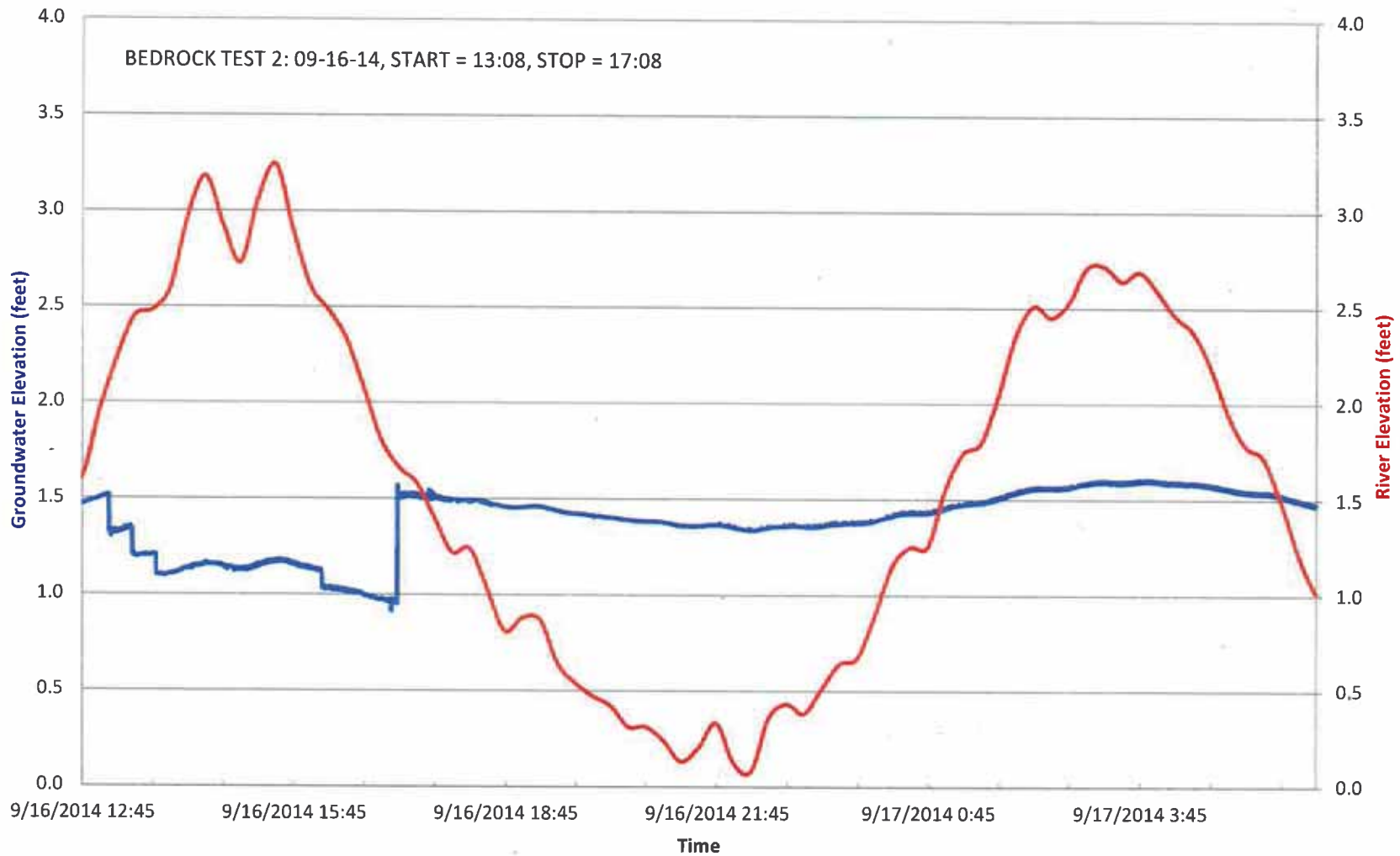


Figure J-13B
MW-6B Pumping Test

Groundwater Elevation and River Elevation over Time in MW-6B

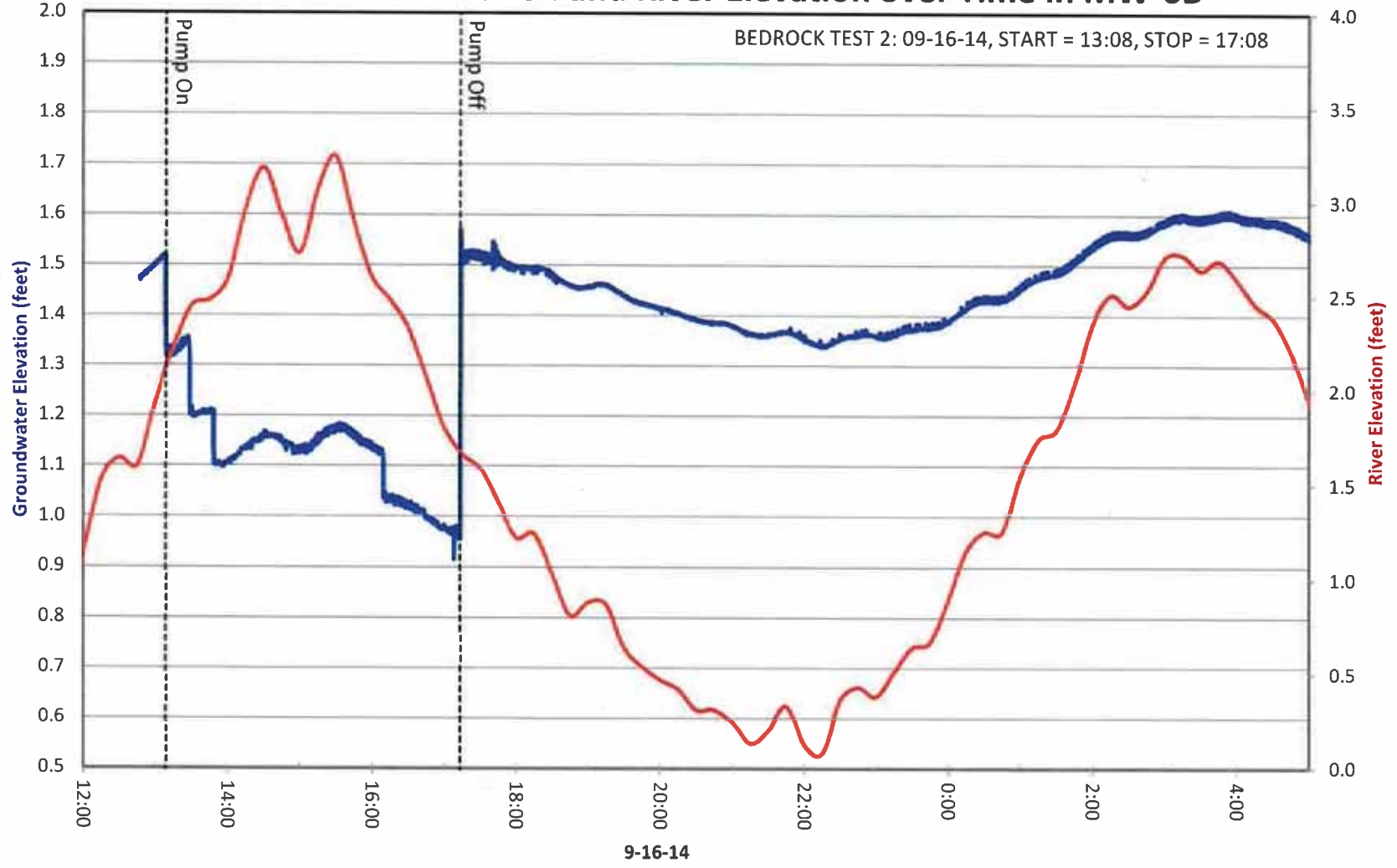


Figure J-14
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-2B

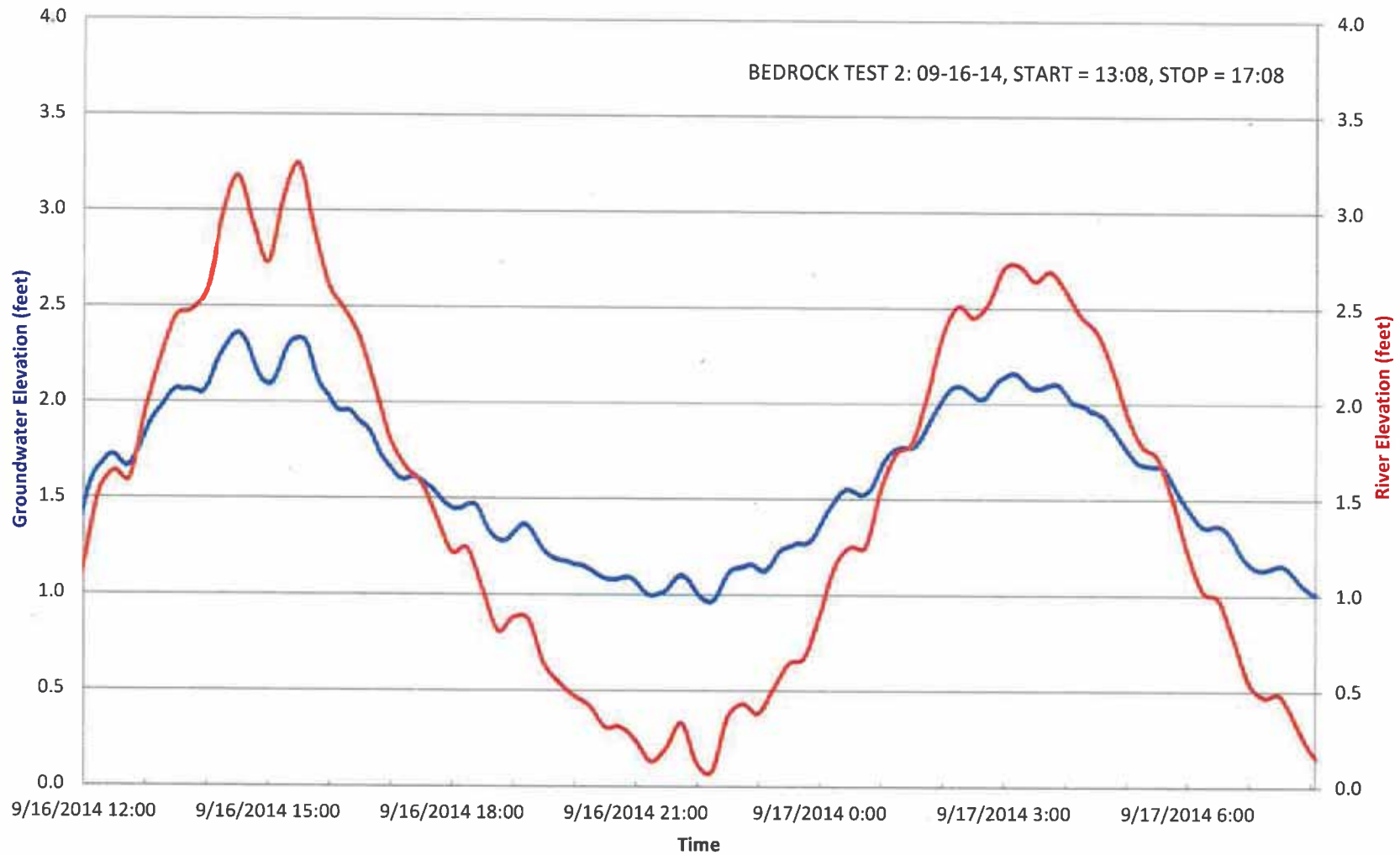


Figure J-15A
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-6

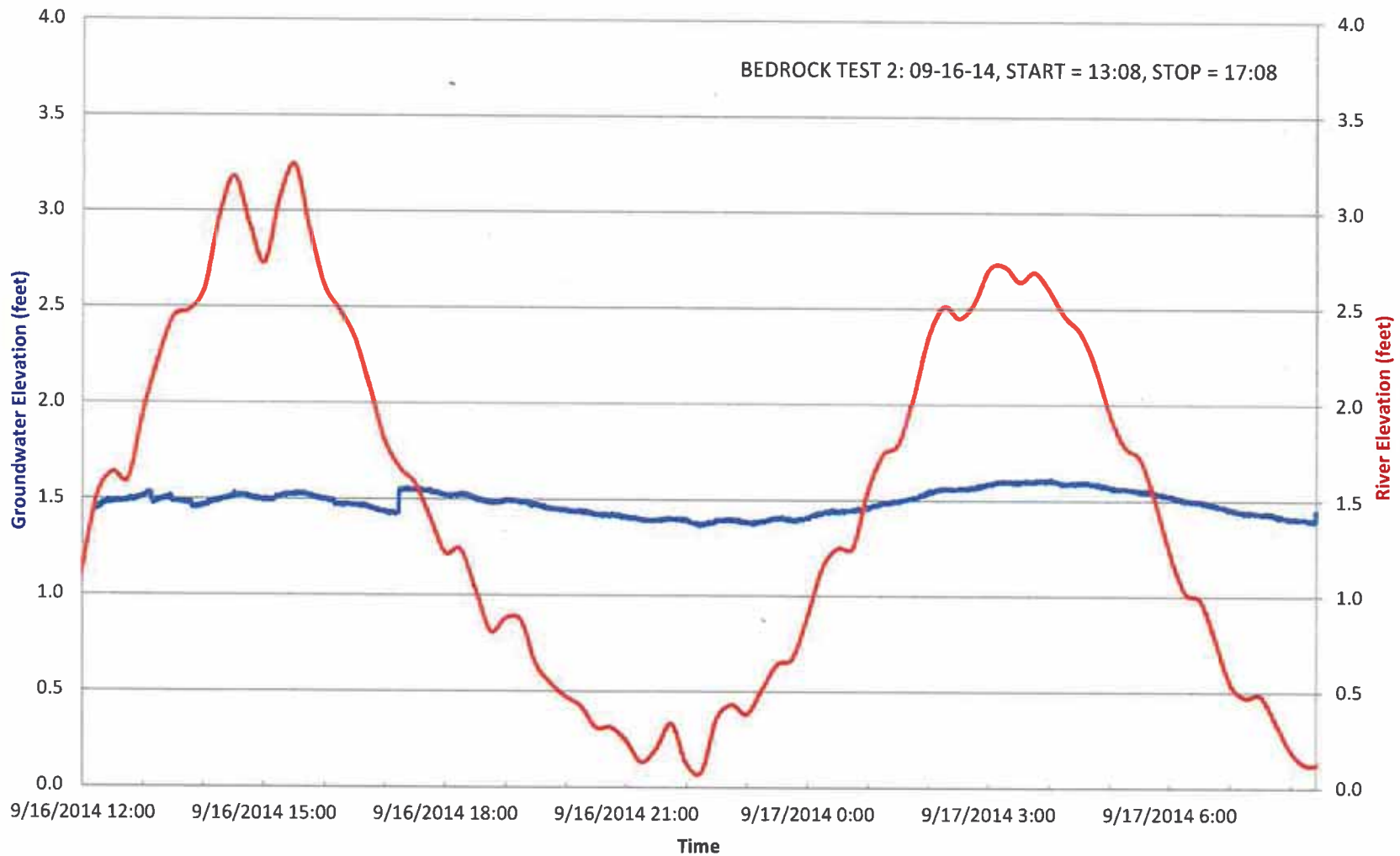


Figure J-15B
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-6

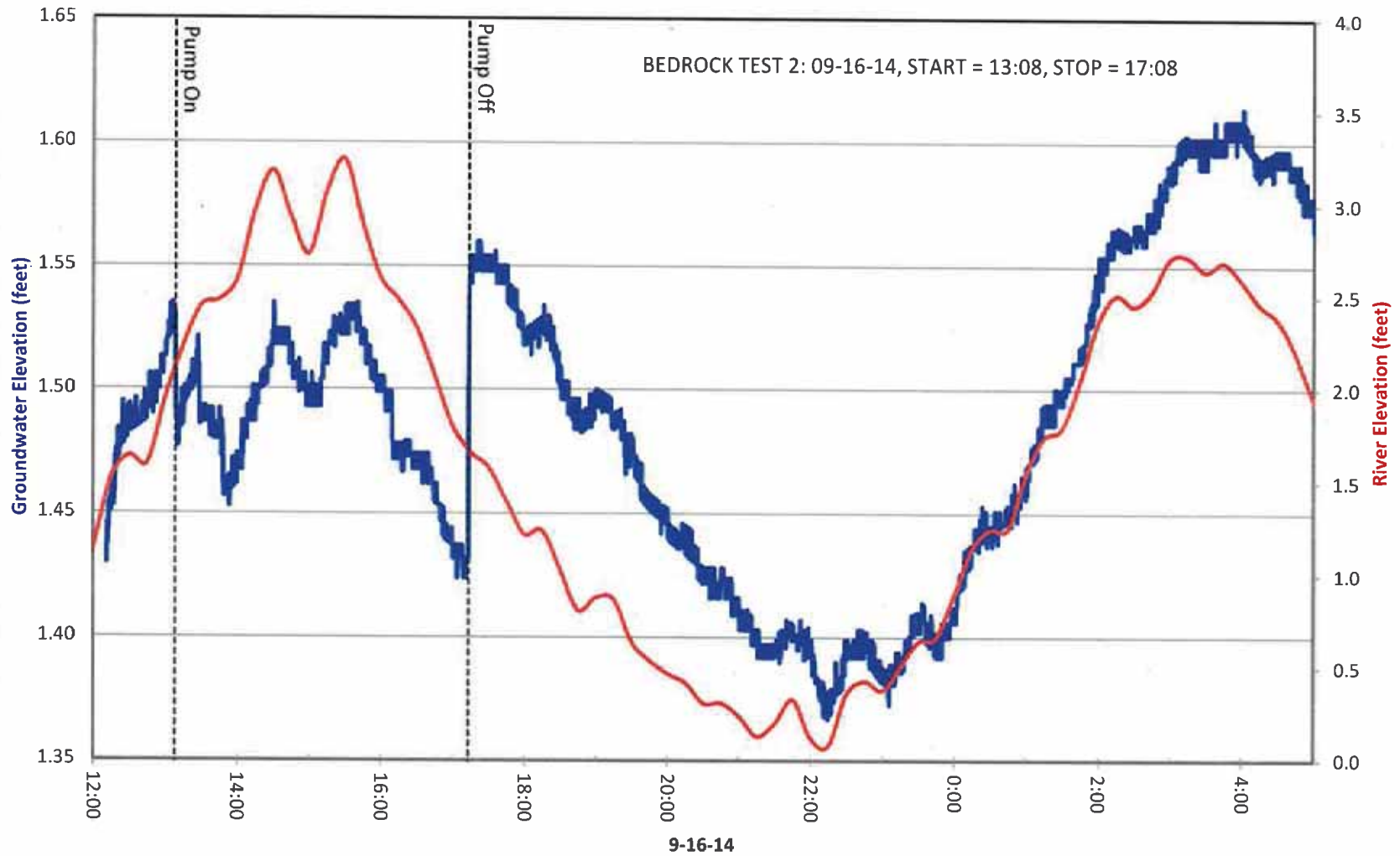


Figure J-16A
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-6A

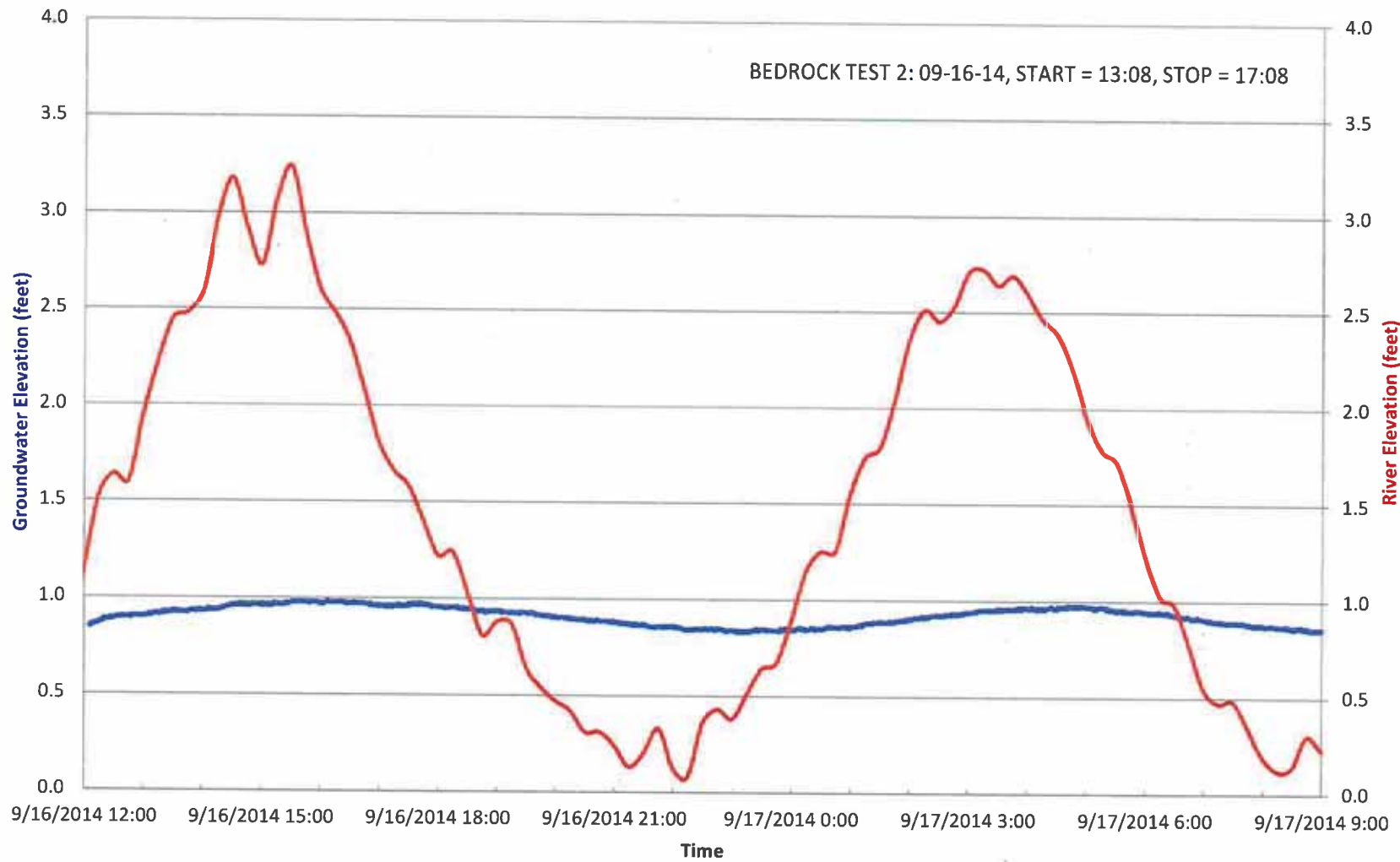


Figure J-16B
MW-6B Pumping Test

Groundwater Elevation and River Elevation over Time in MW-6A

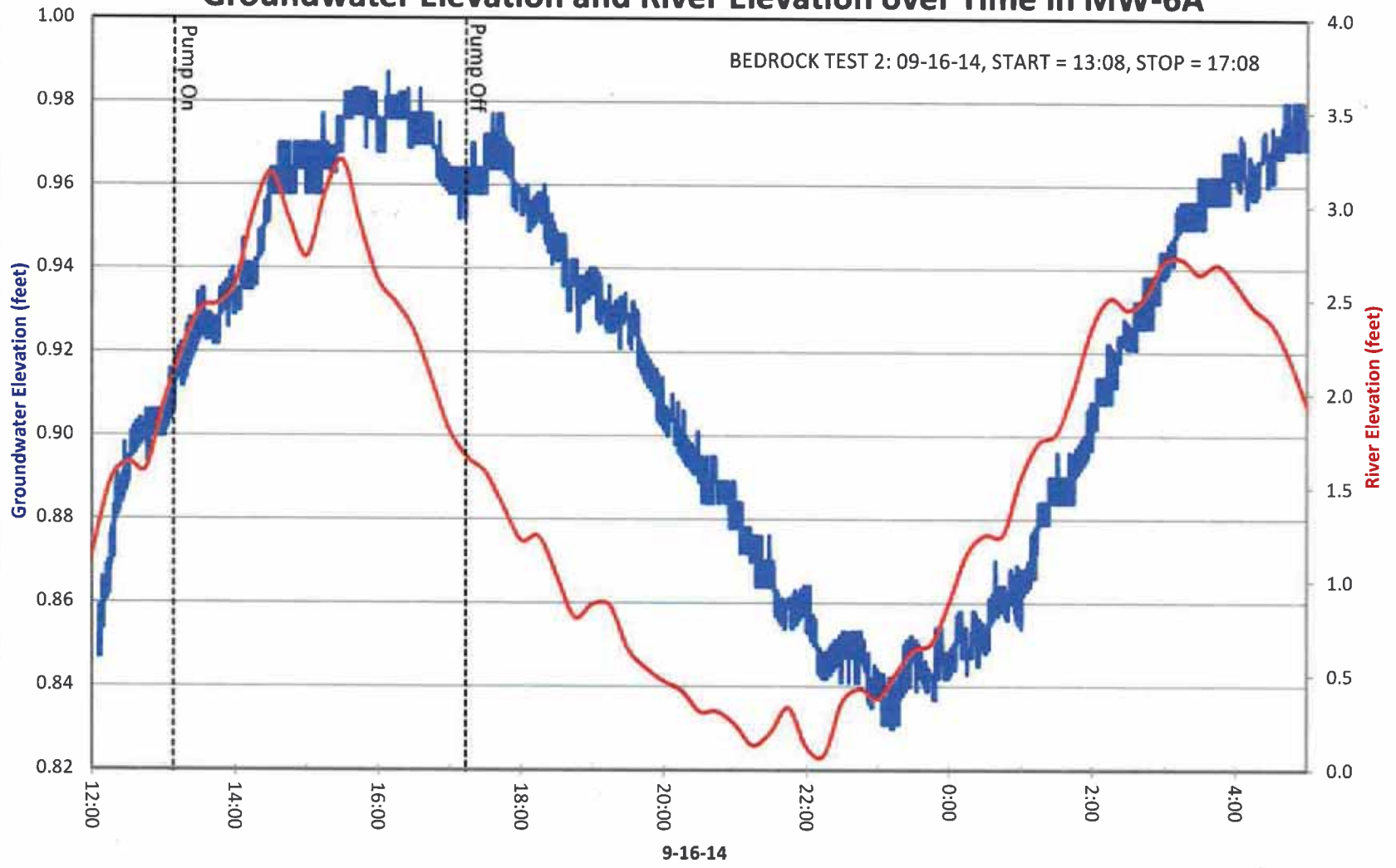


Figure J-17A
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-10D

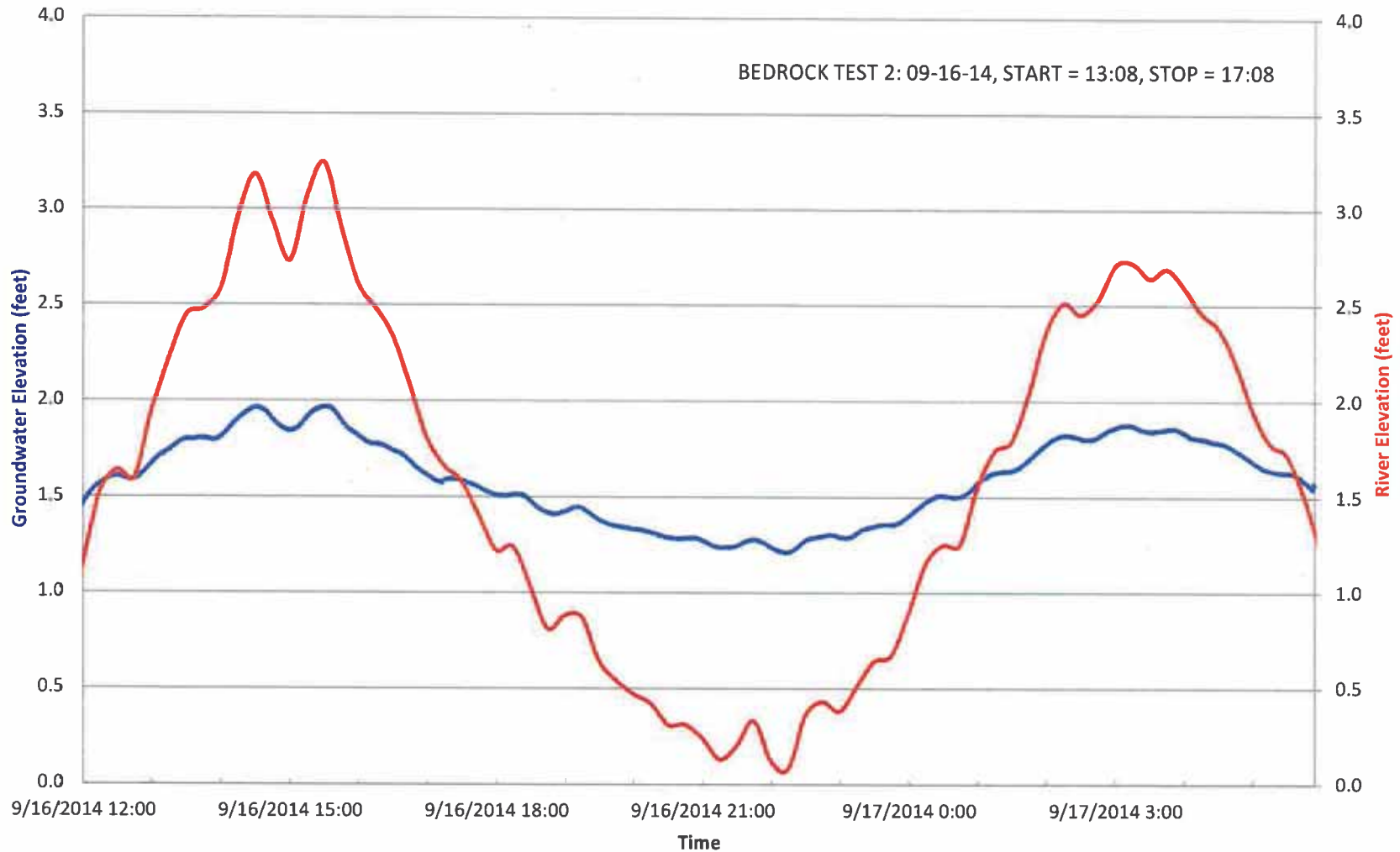


Figure J-17B
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-10D

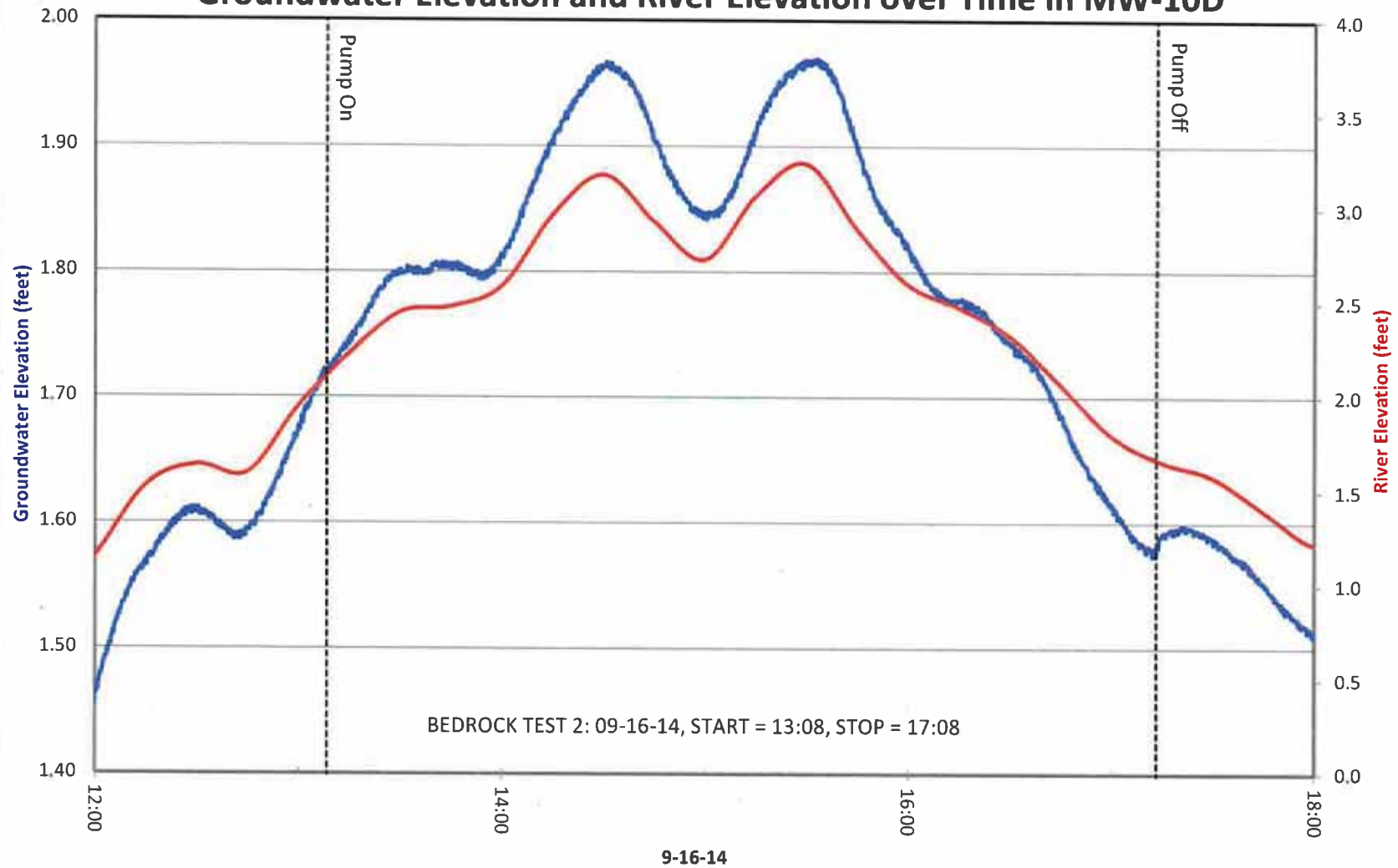


Figure J-18
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-15B

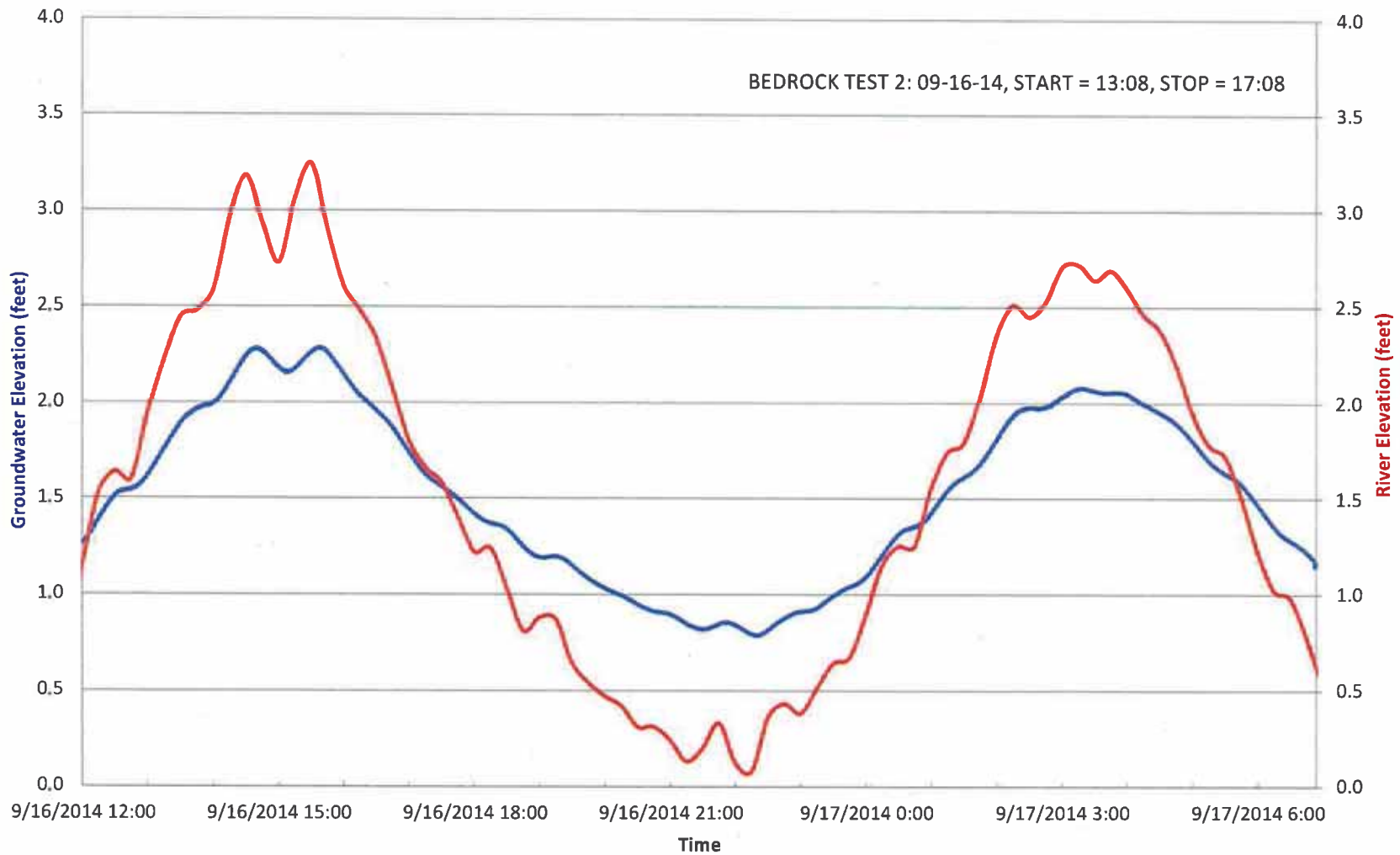


Figure J-19
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-17B



Figure J-20A
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-18D

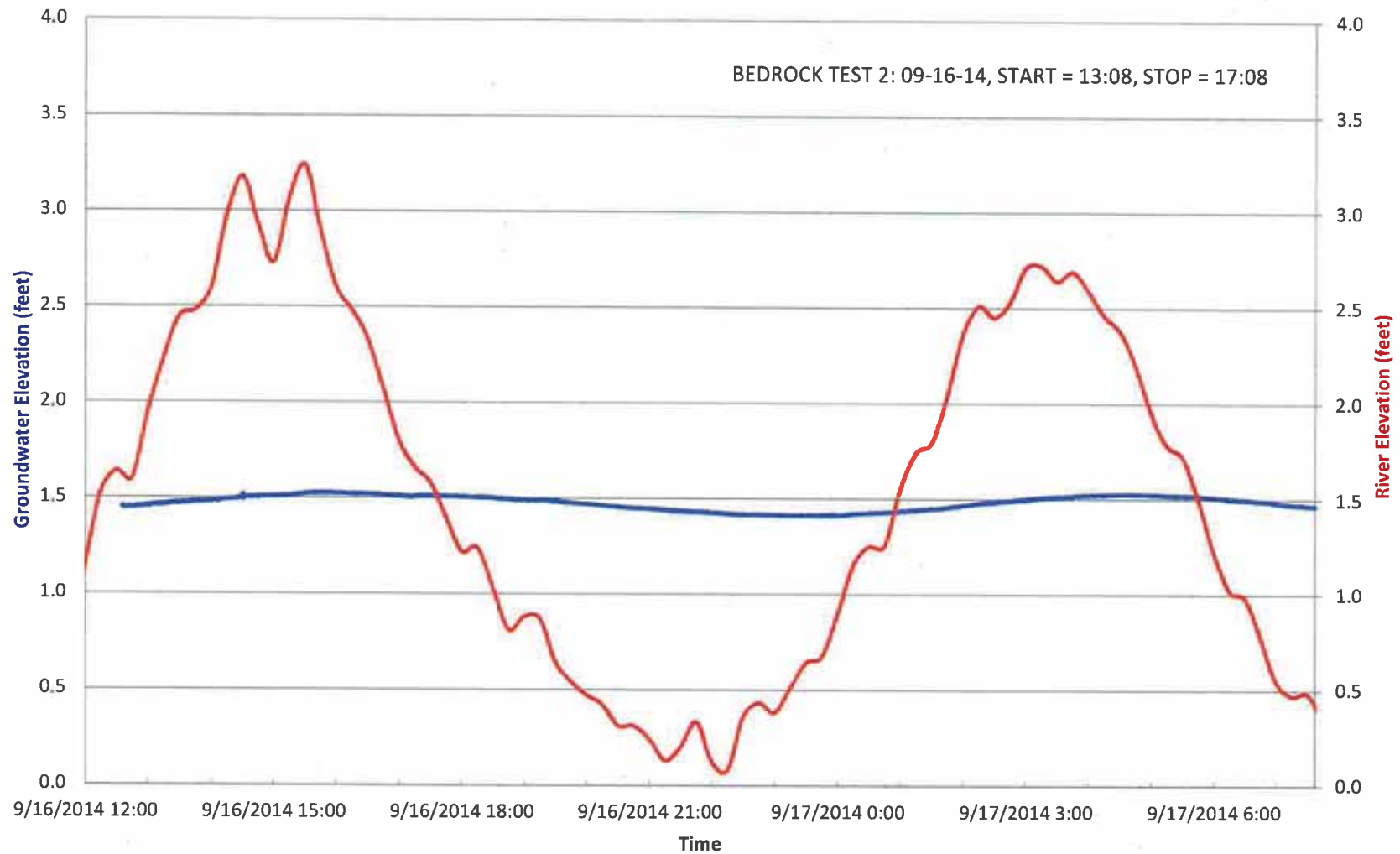


Figure J-20B
MW-6B Pumping Test

Groundwater Elevation and River Elevation over Time in MW-18D

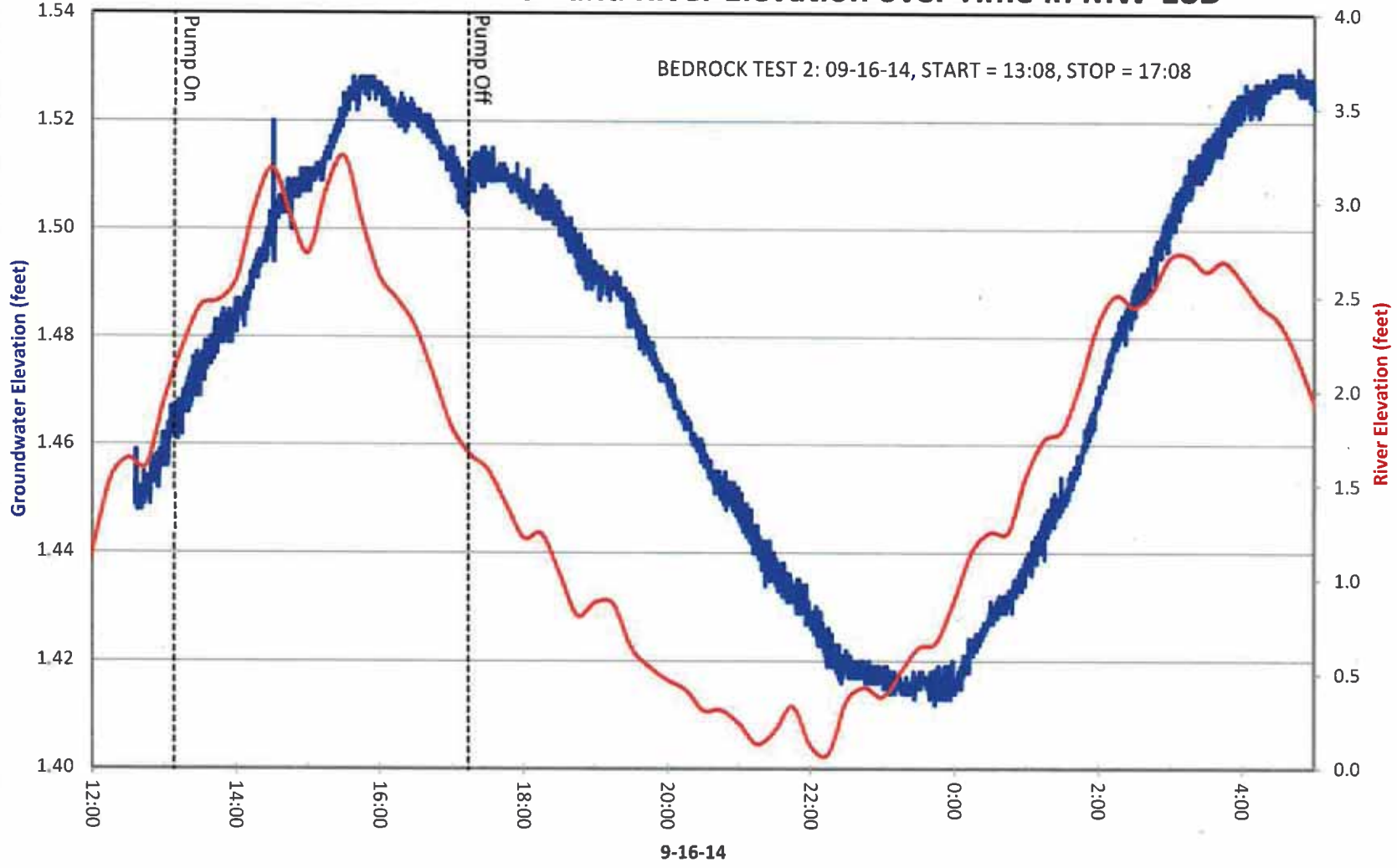


Figure J-21A
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-26B

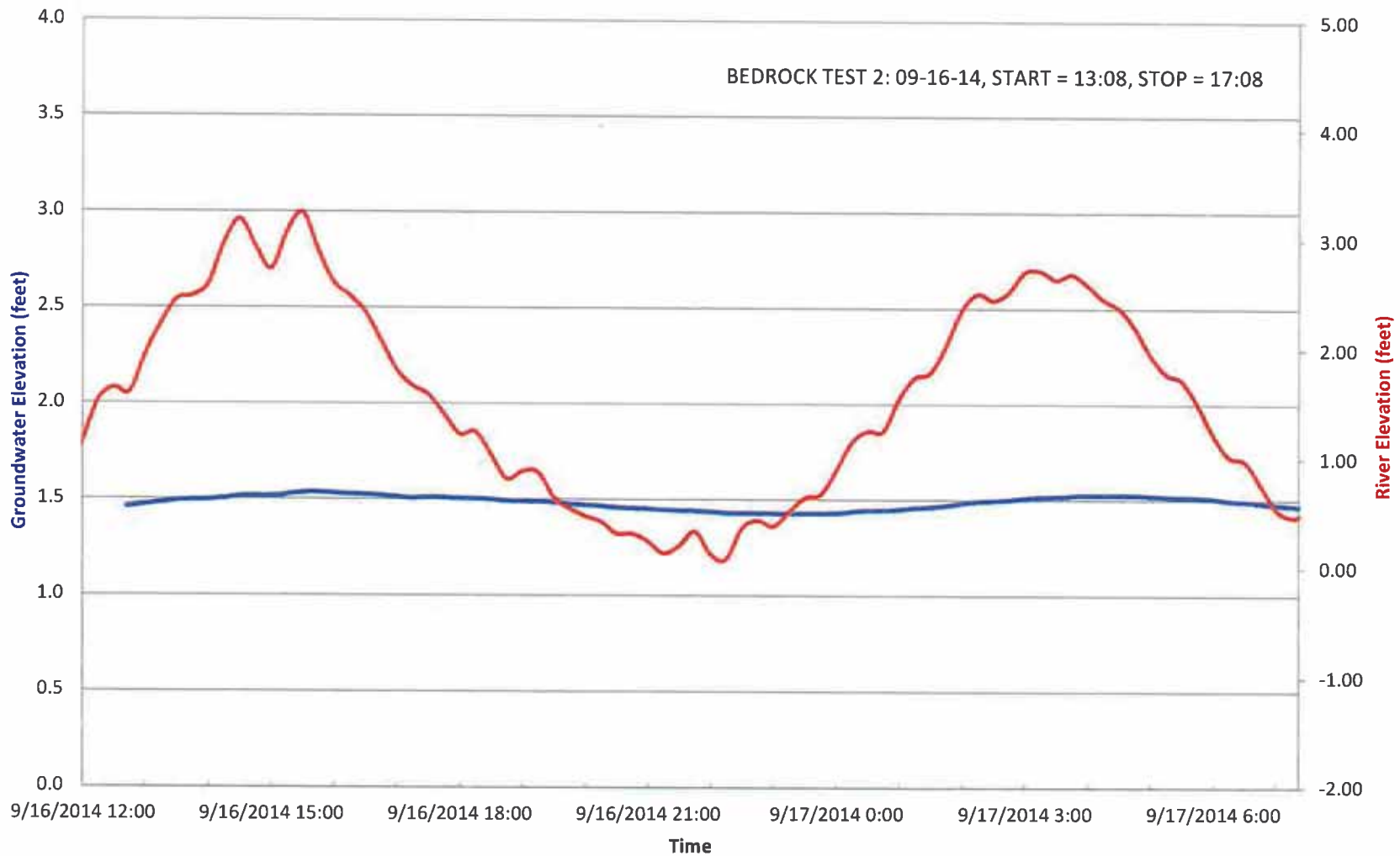


Figure J-21B
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-26B

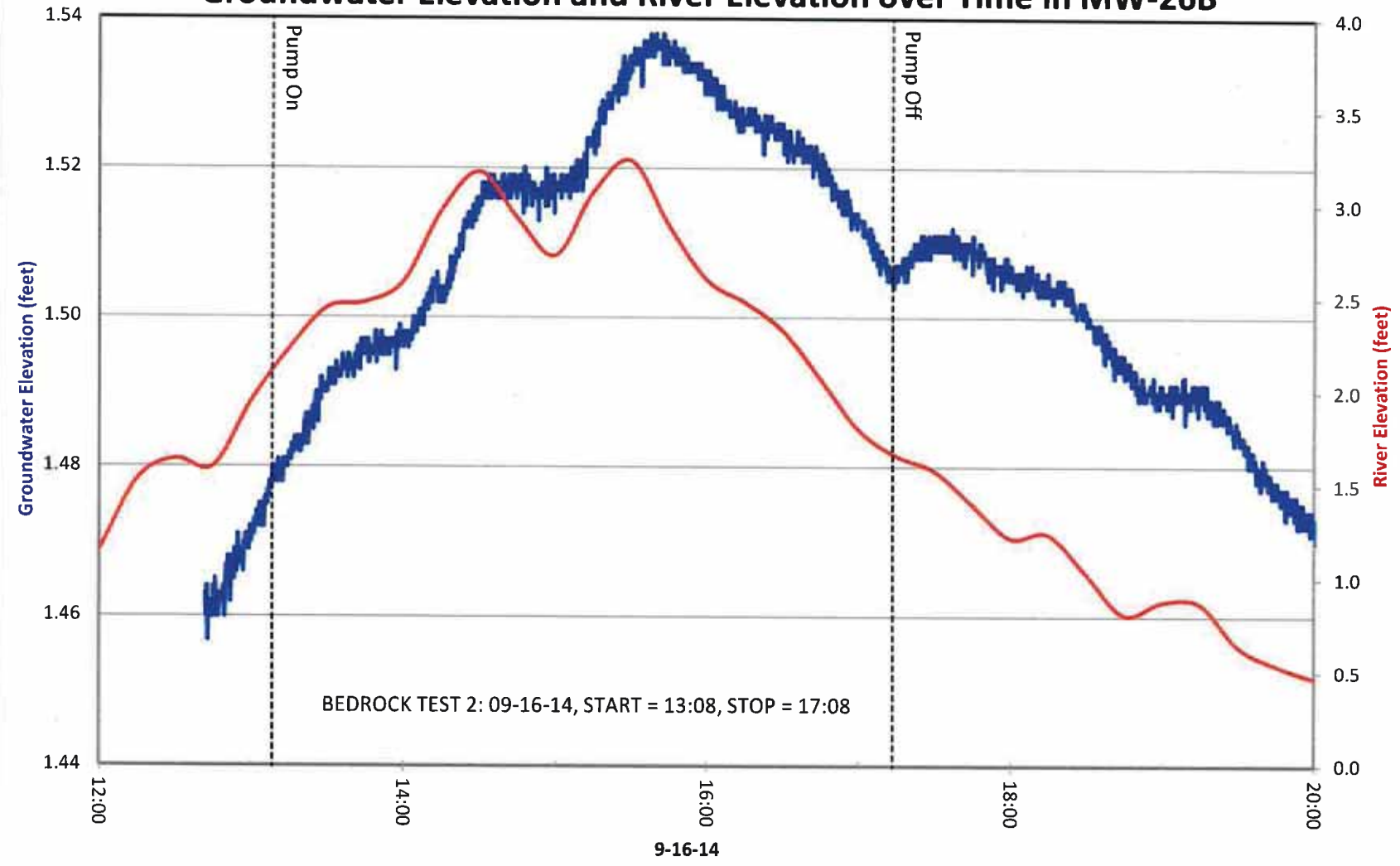


Figure J-22
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-27B

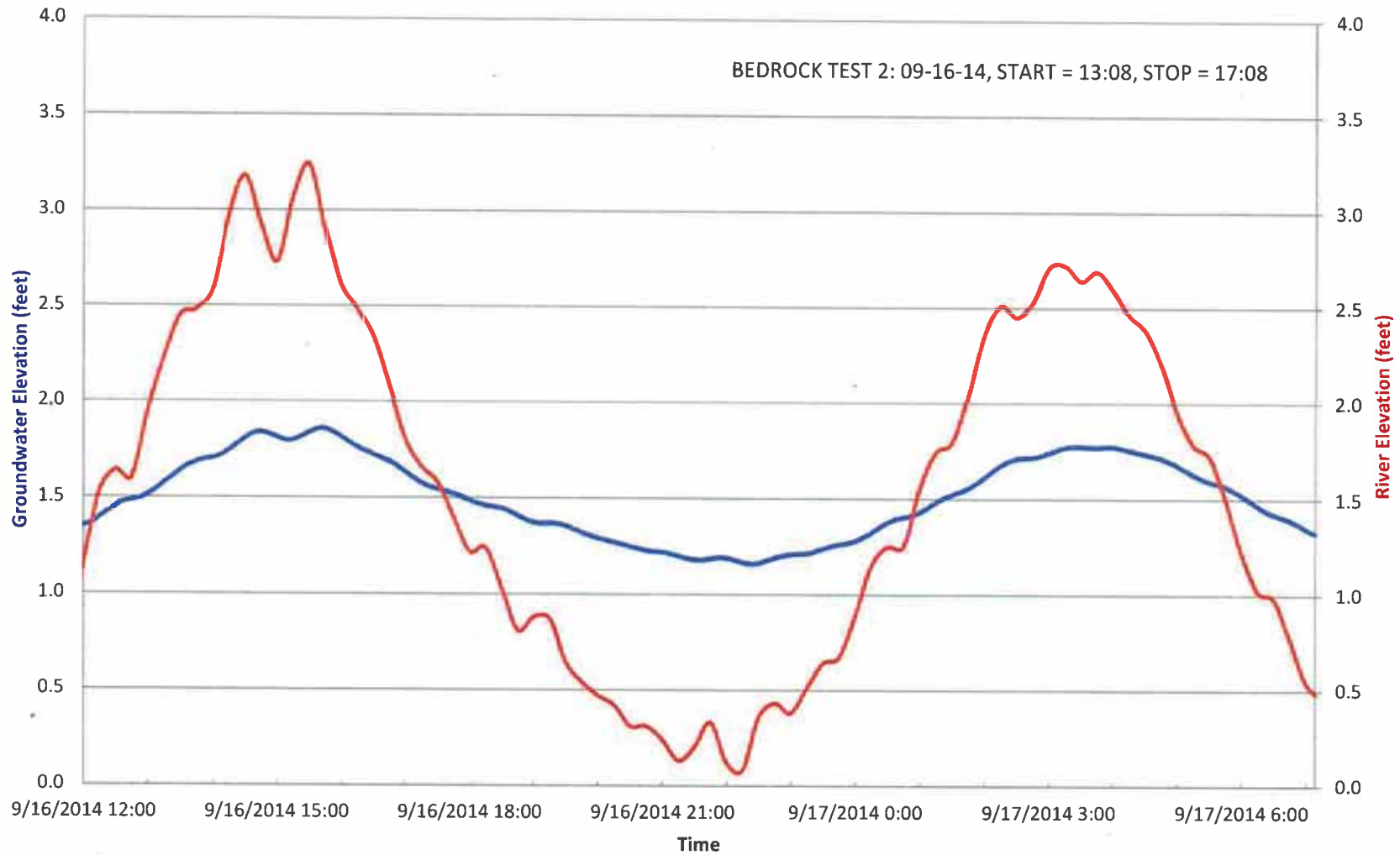


Figure J-23
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-28B

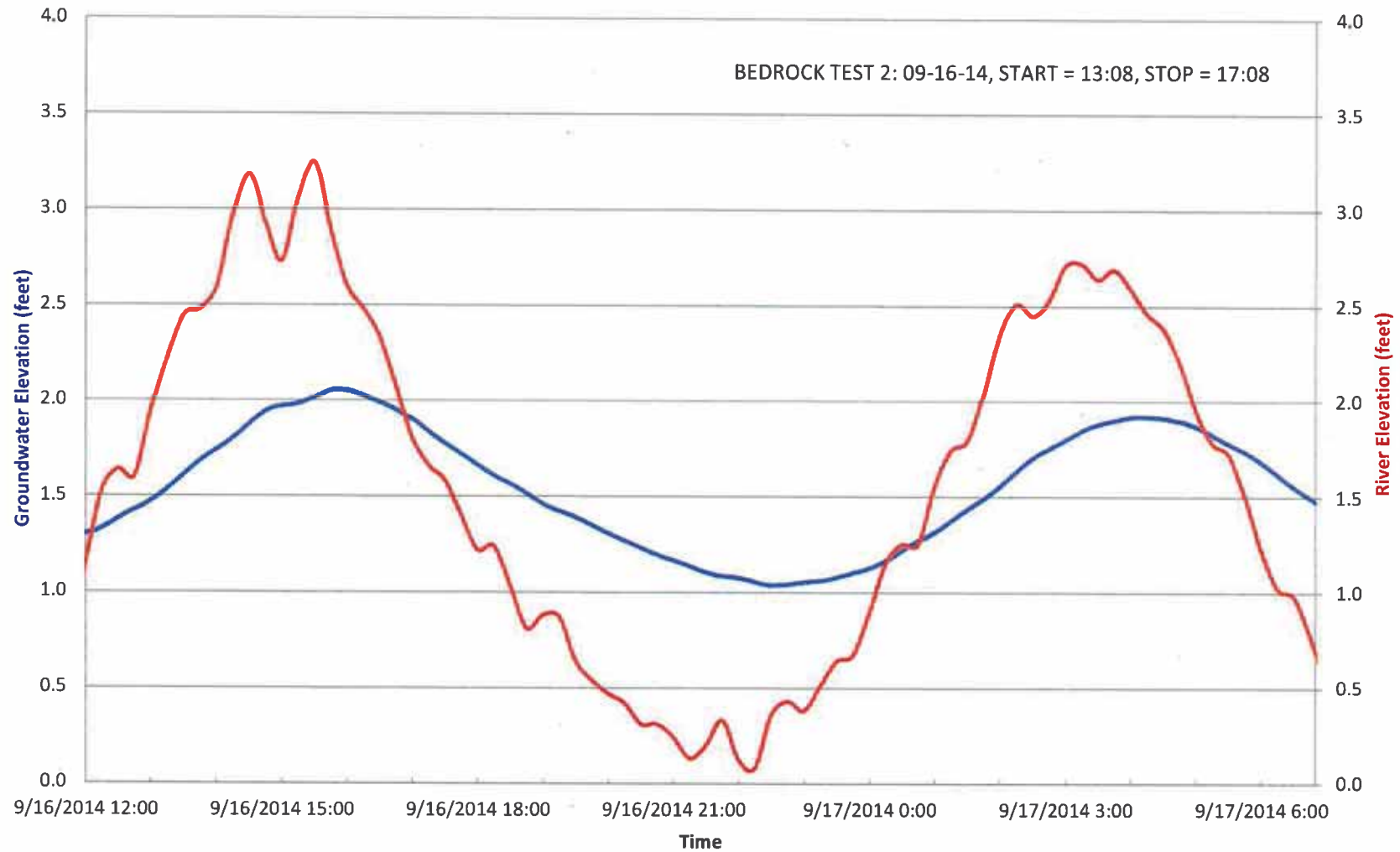


Figure J-24
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in GZ-101D

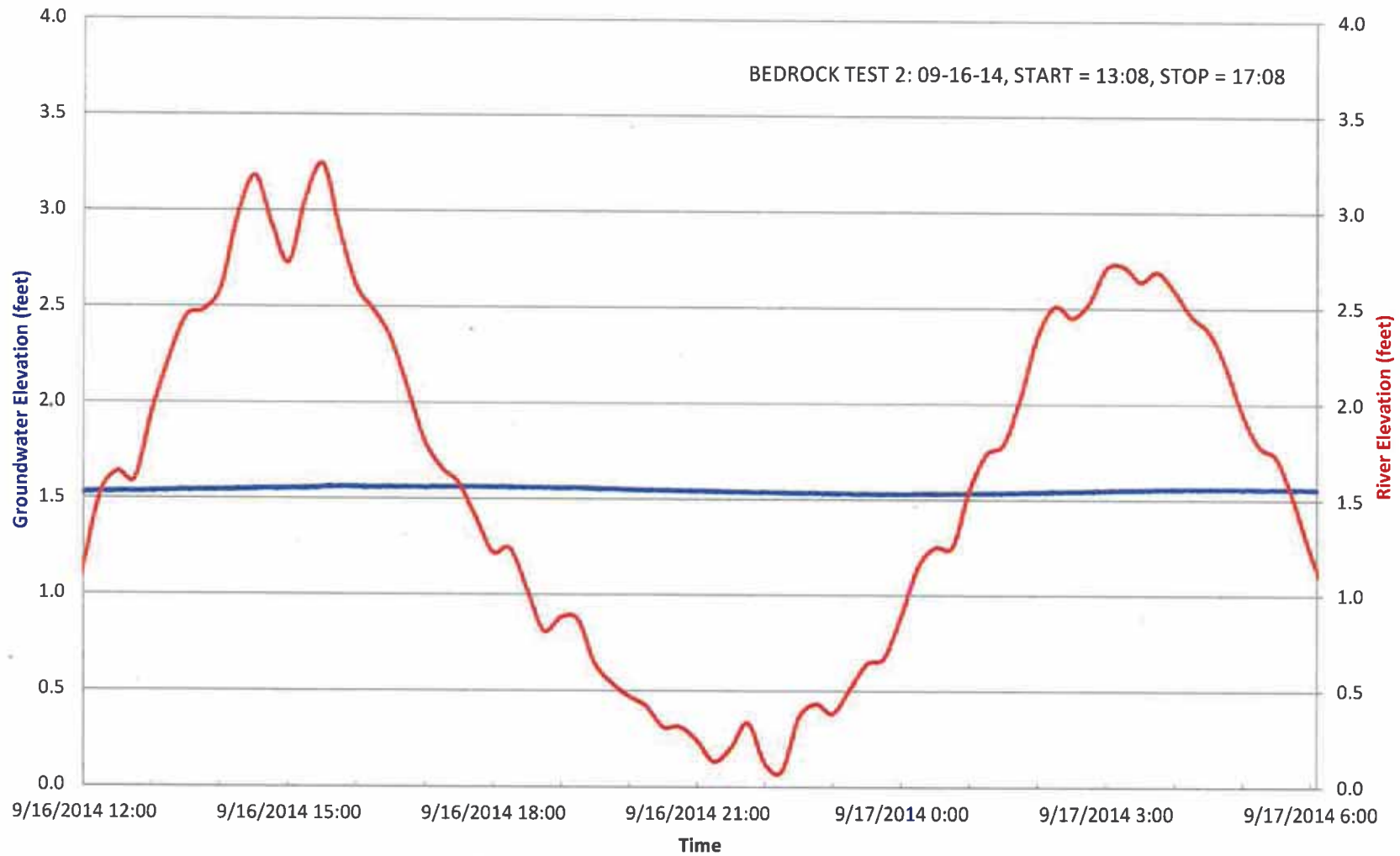


Figure J-25A
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in GZ-102D

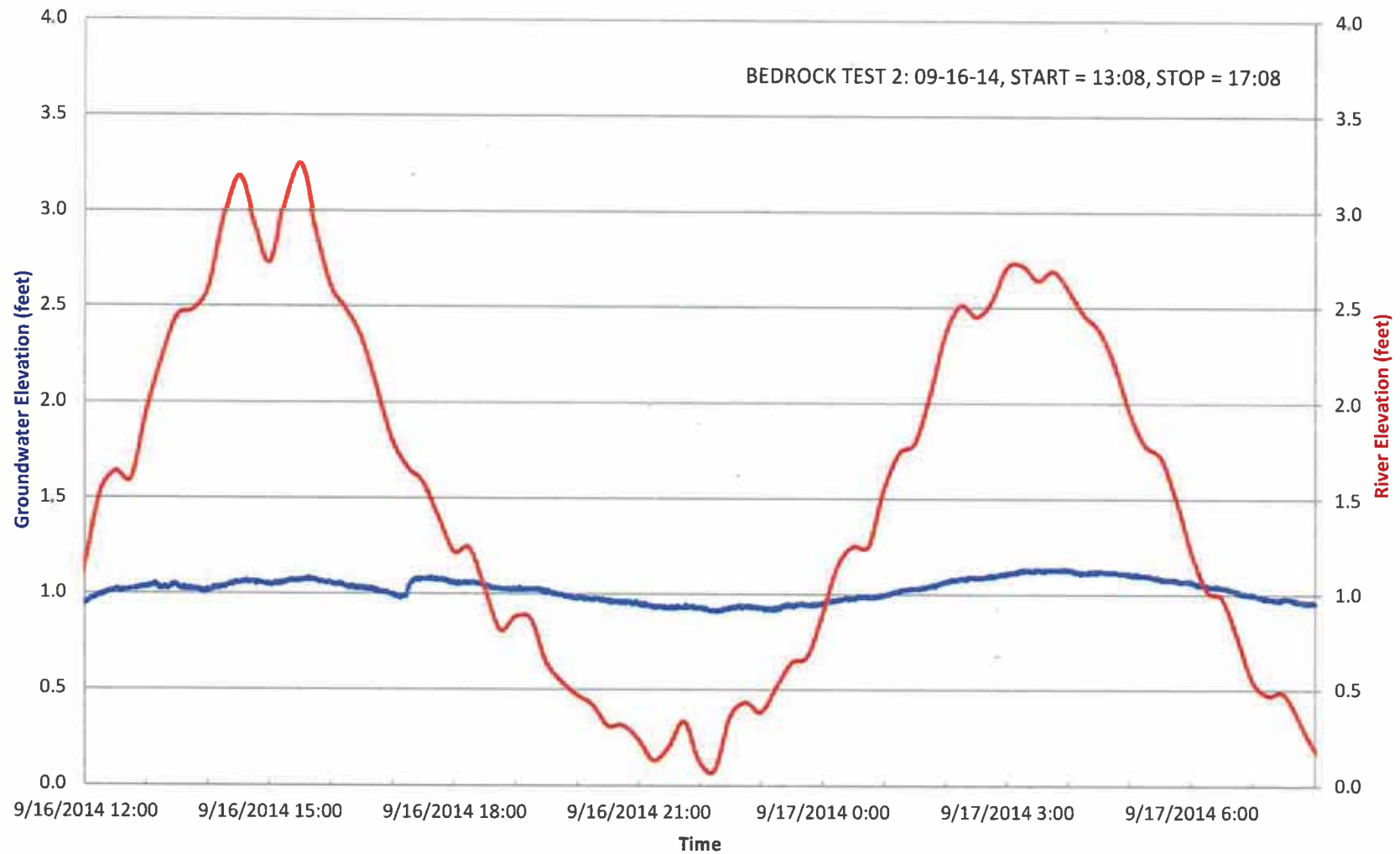


Figure J-25B
MW-6B Pumping Test

Groundwater Elevation and River Elevation over Time in MW-102D

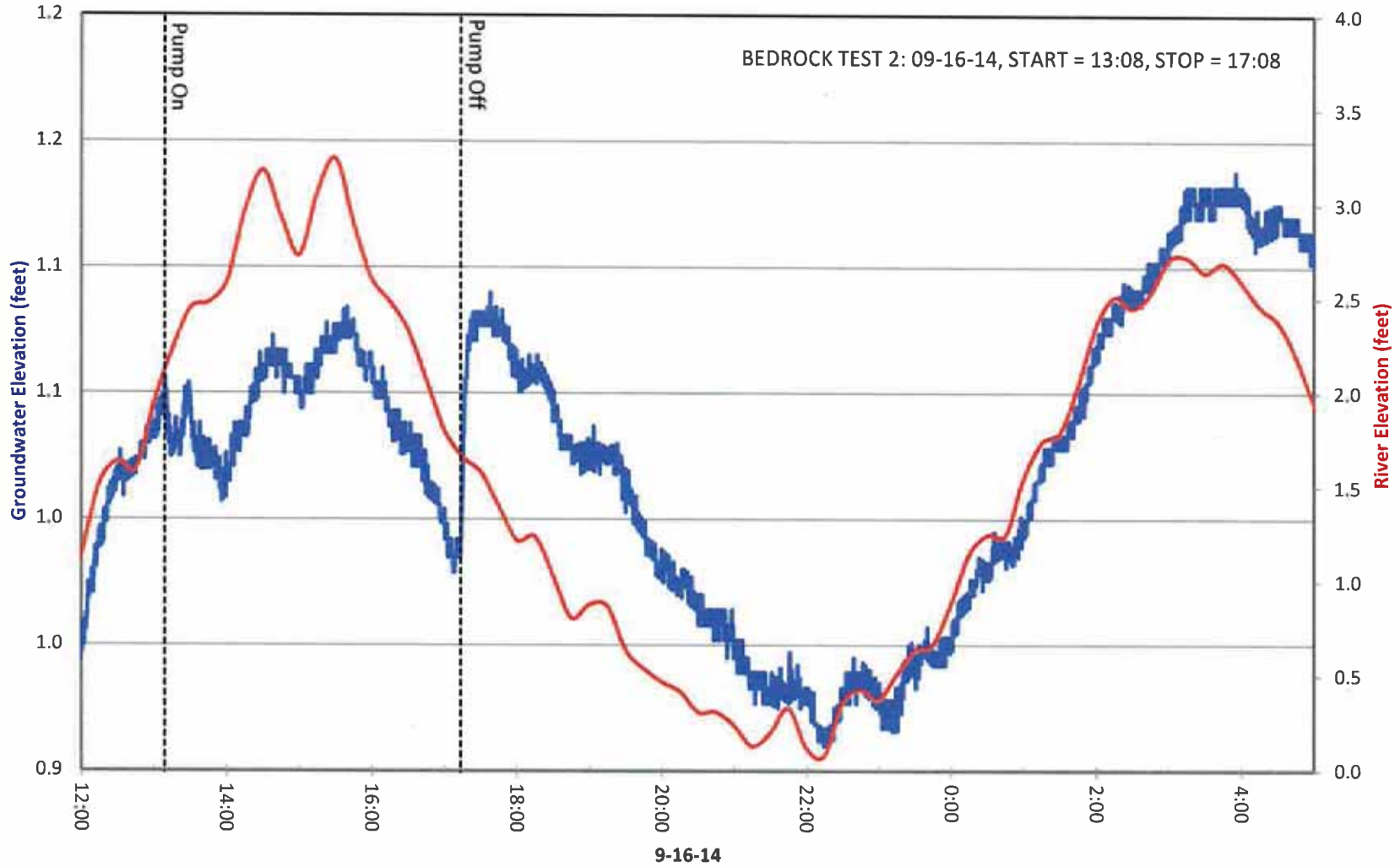


Figure J-26
MW-6B Pumping Test
Groundwater Elevation and River Elevation over Time in MW-103B

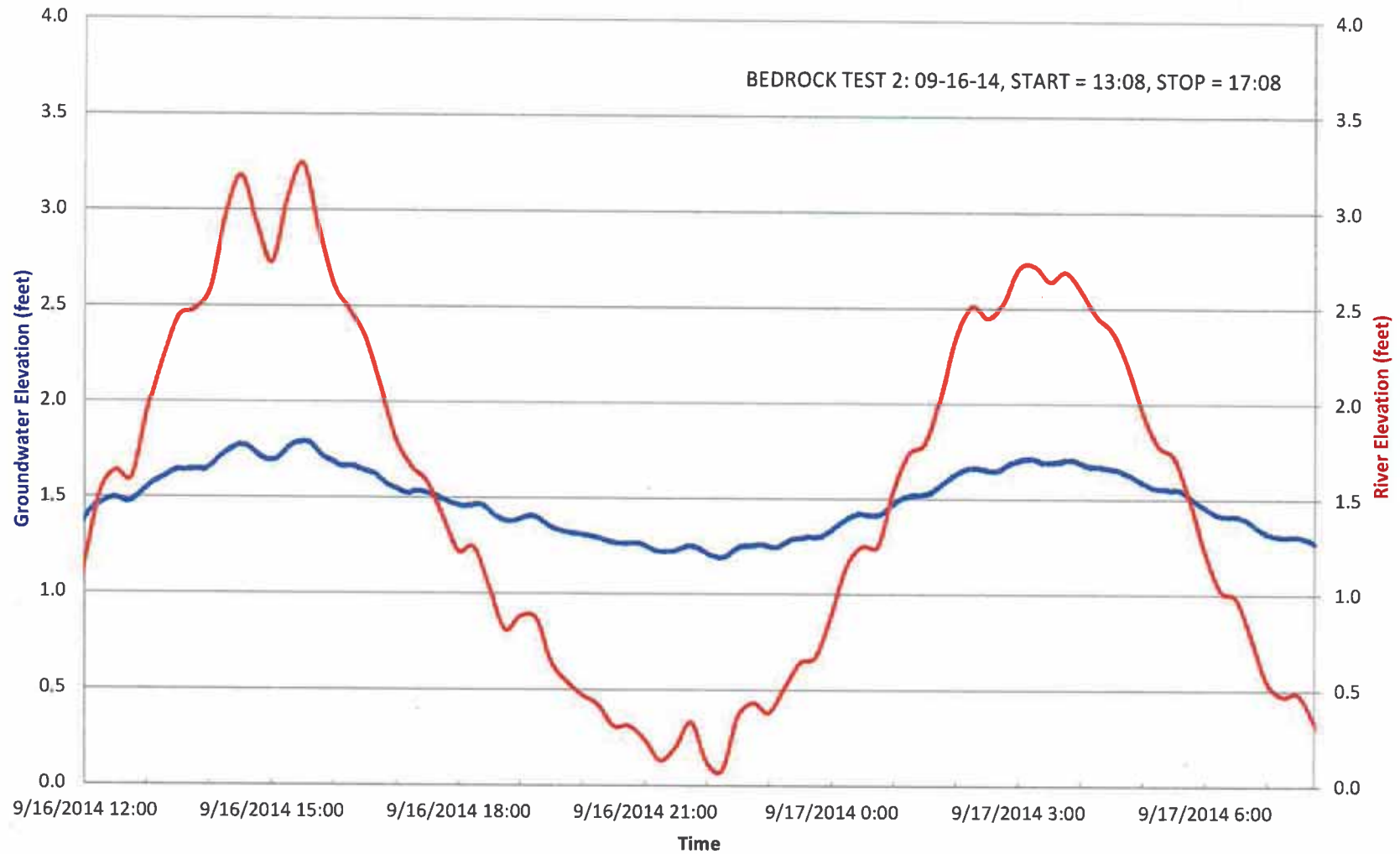


Figure B-27
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-6

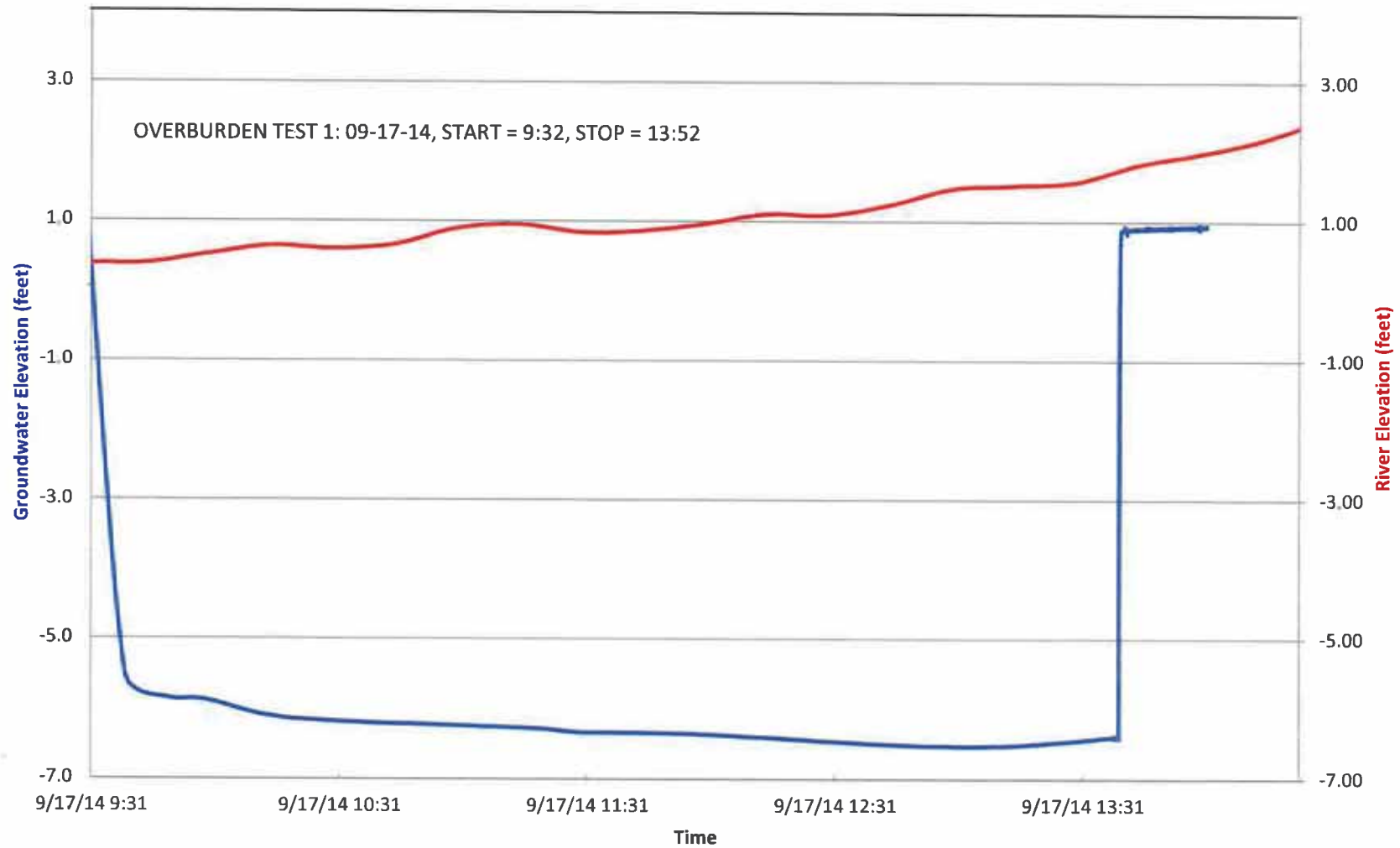


Figure B-28
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-2B

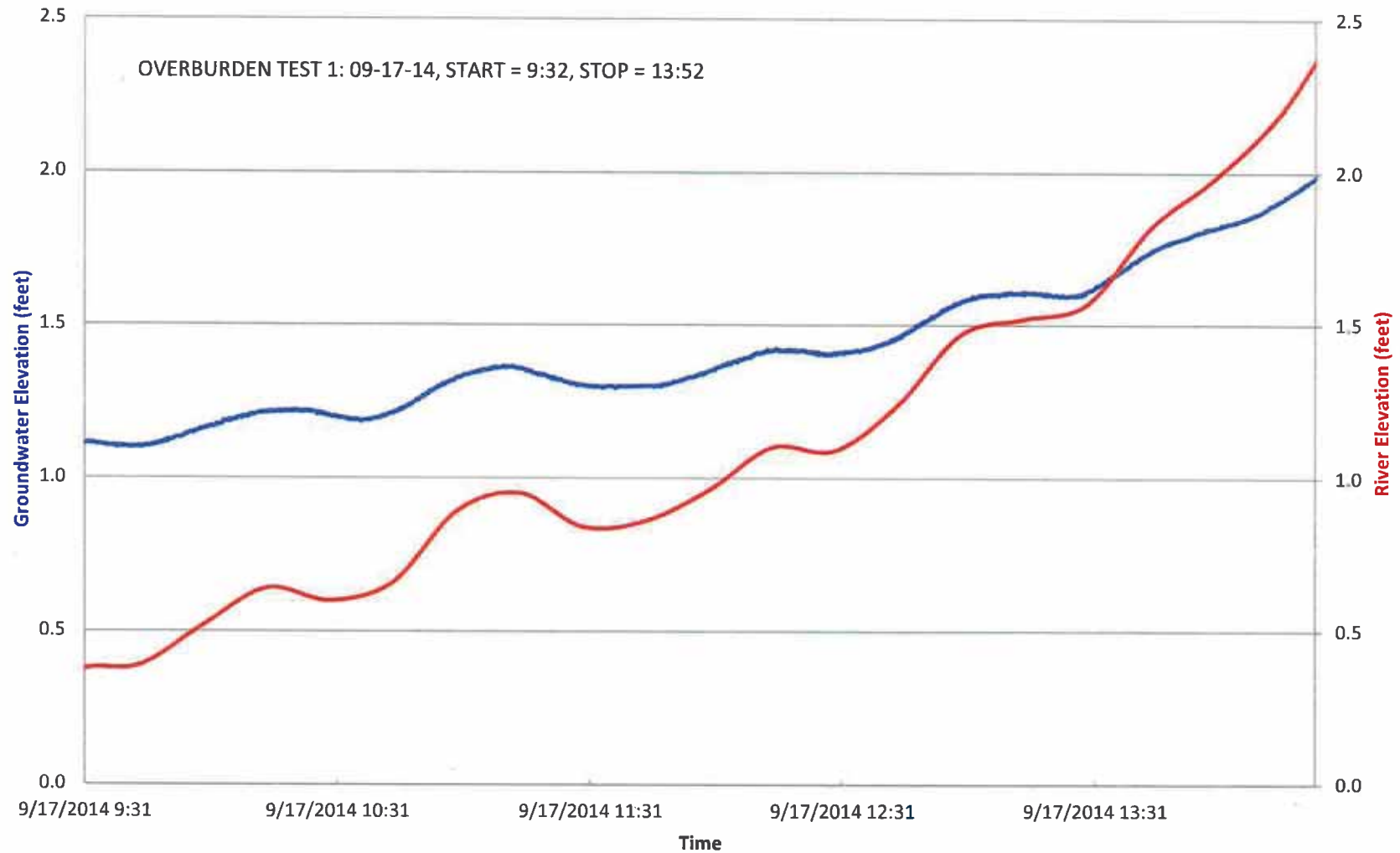


Figure B-29A
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-6A

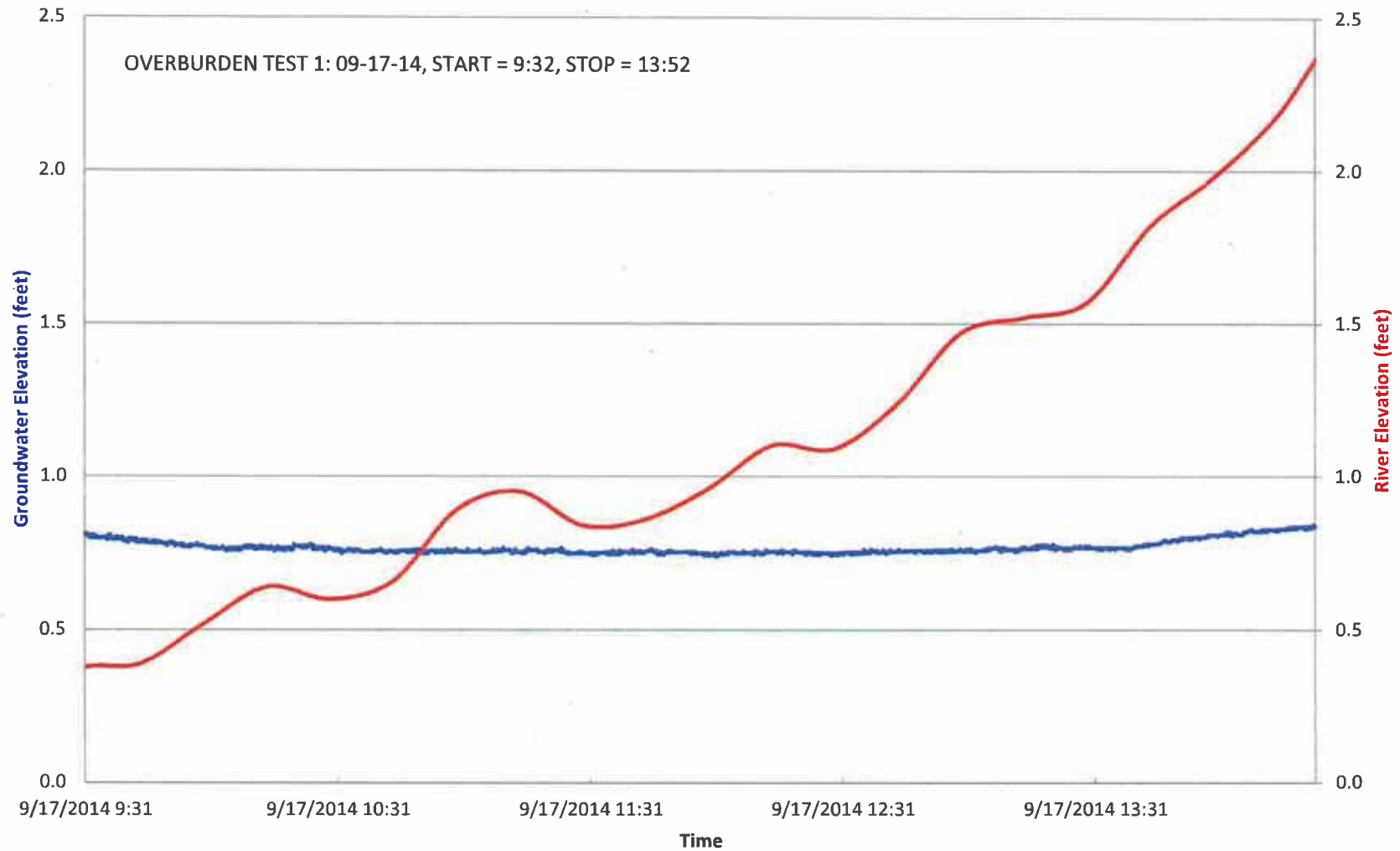


Figure B-29B
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-6A

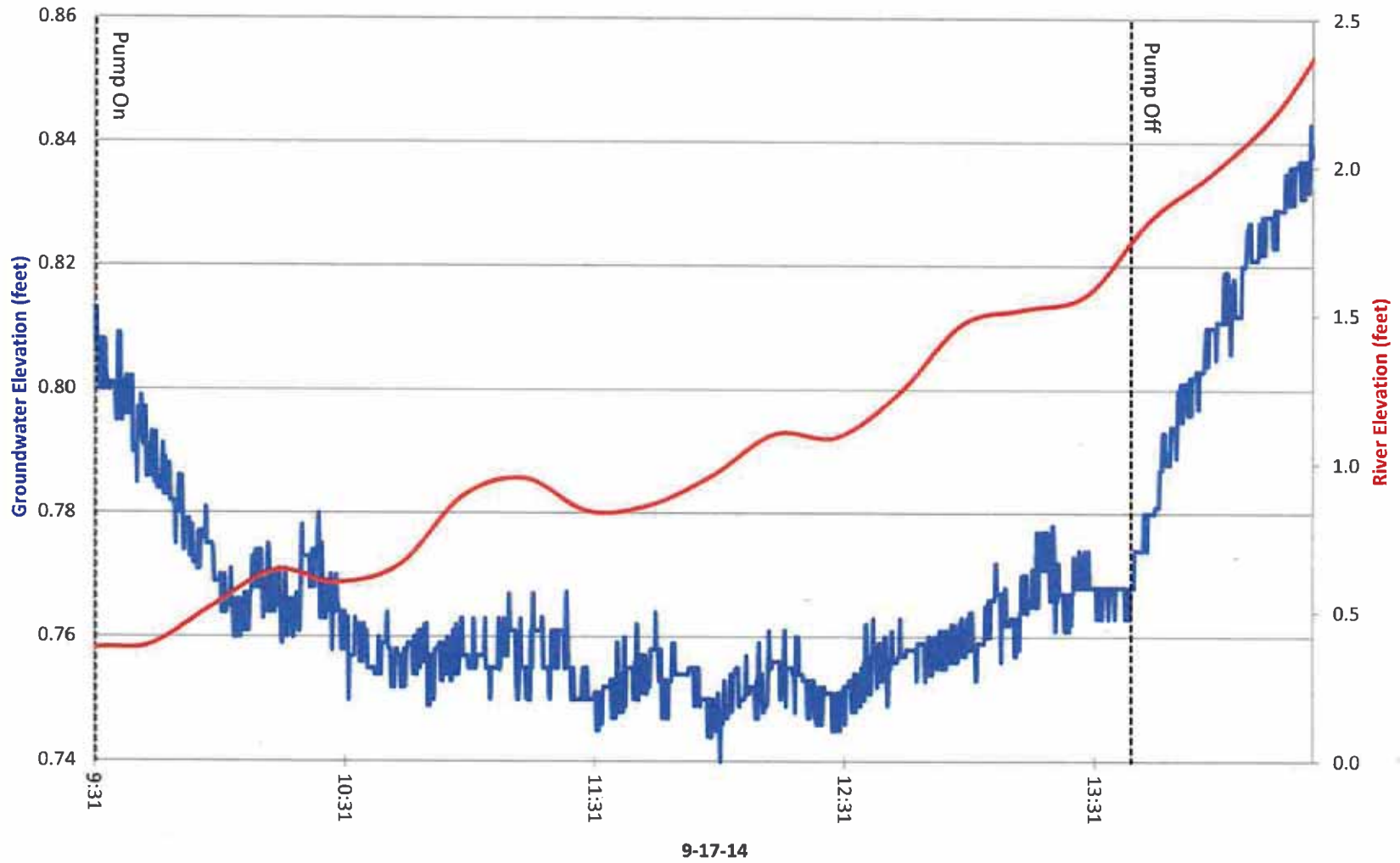


Figure B-30
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-10D



Figure B-31
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-15D

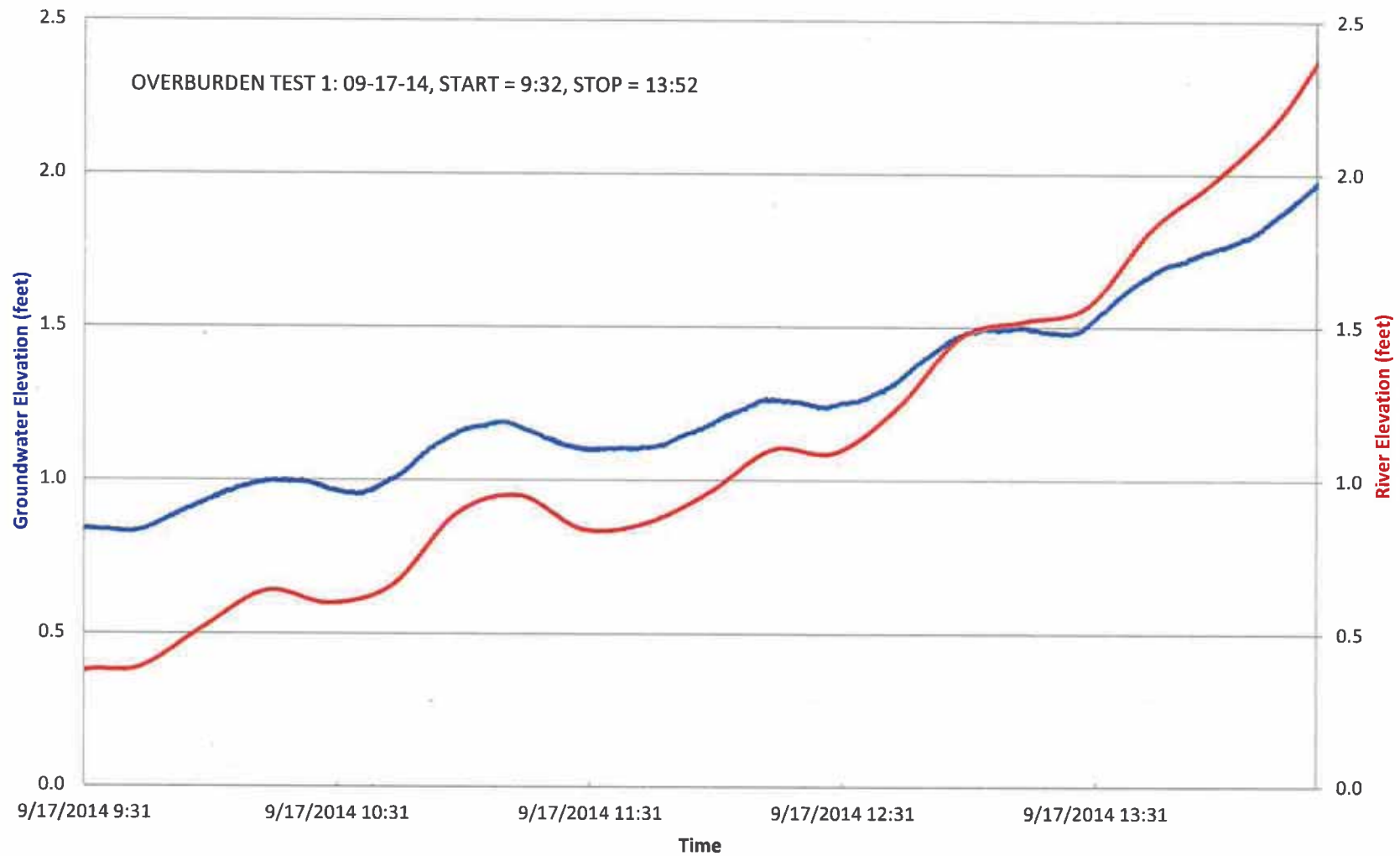


Figure B-32
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-15B

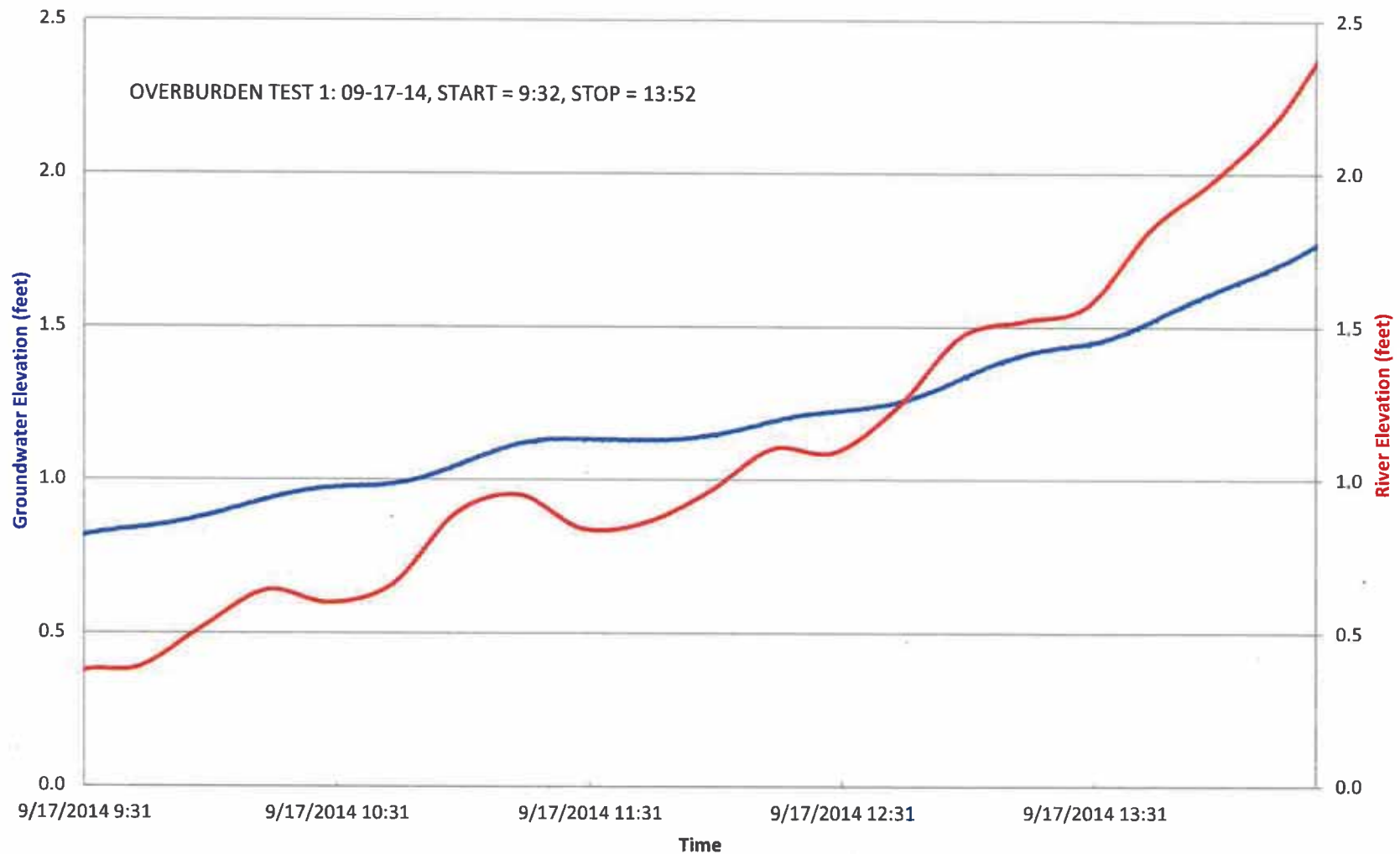


Figure B-33
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-17B

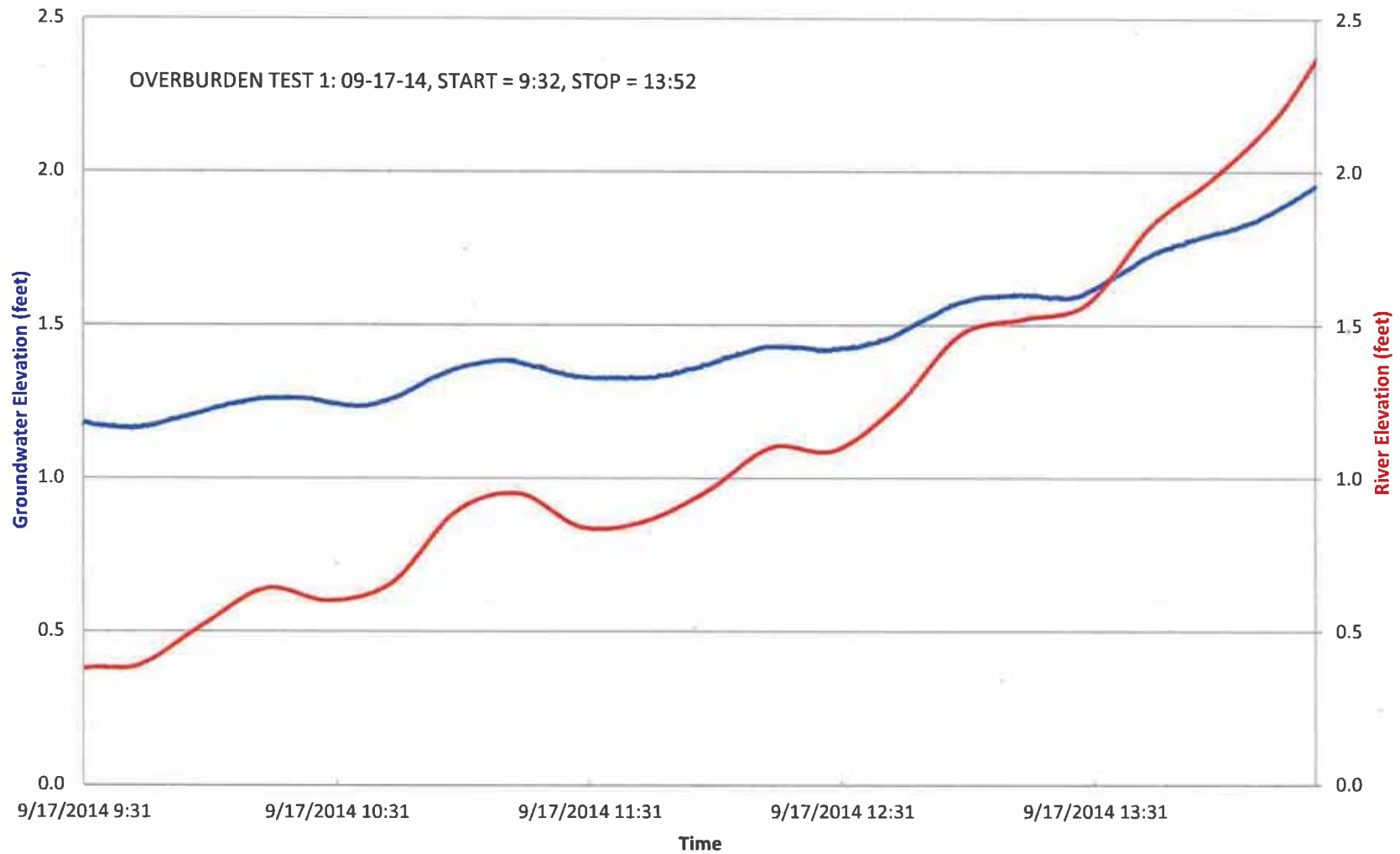


Figure B-34A
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-18S

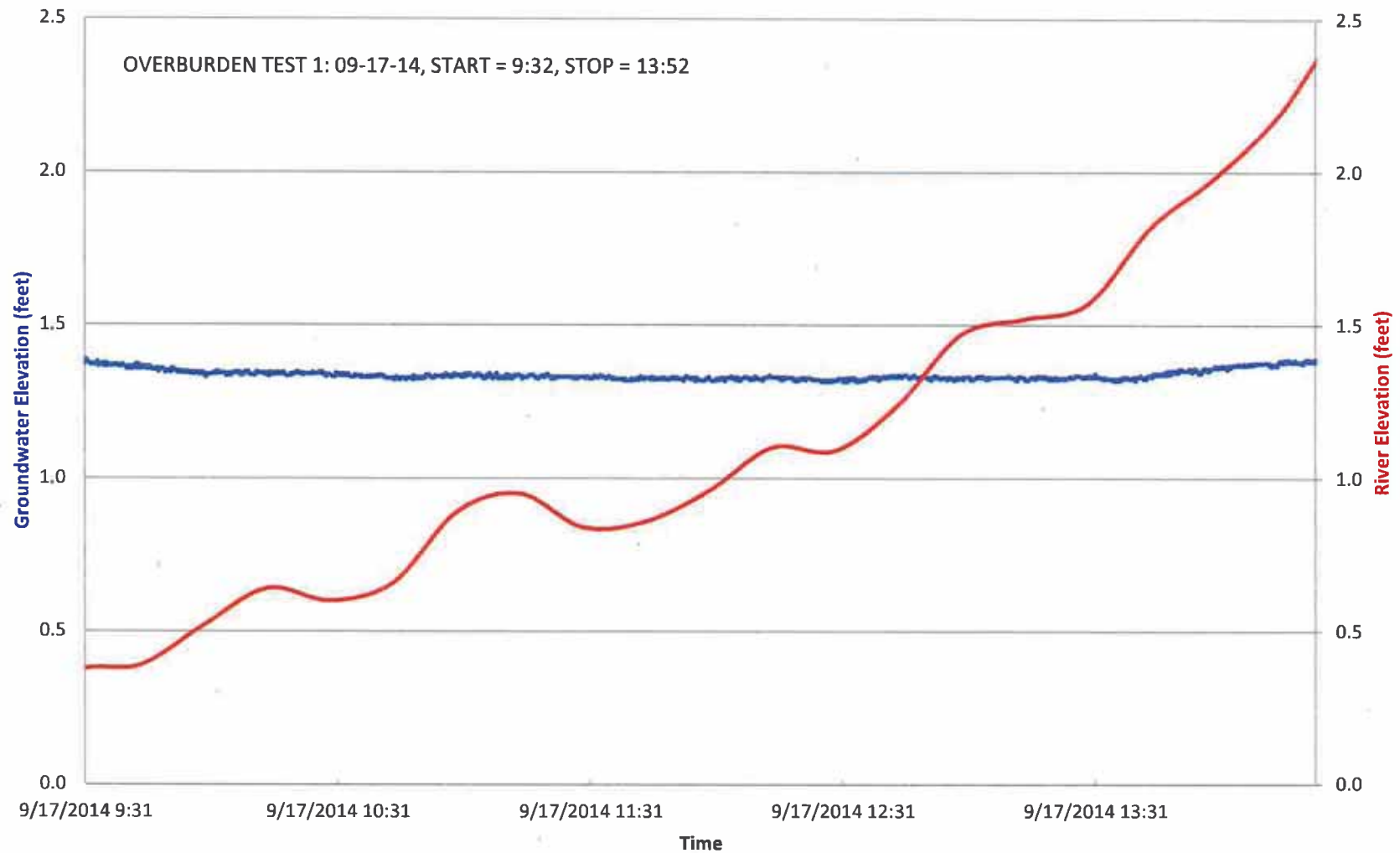


Figure B-34B
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-18S

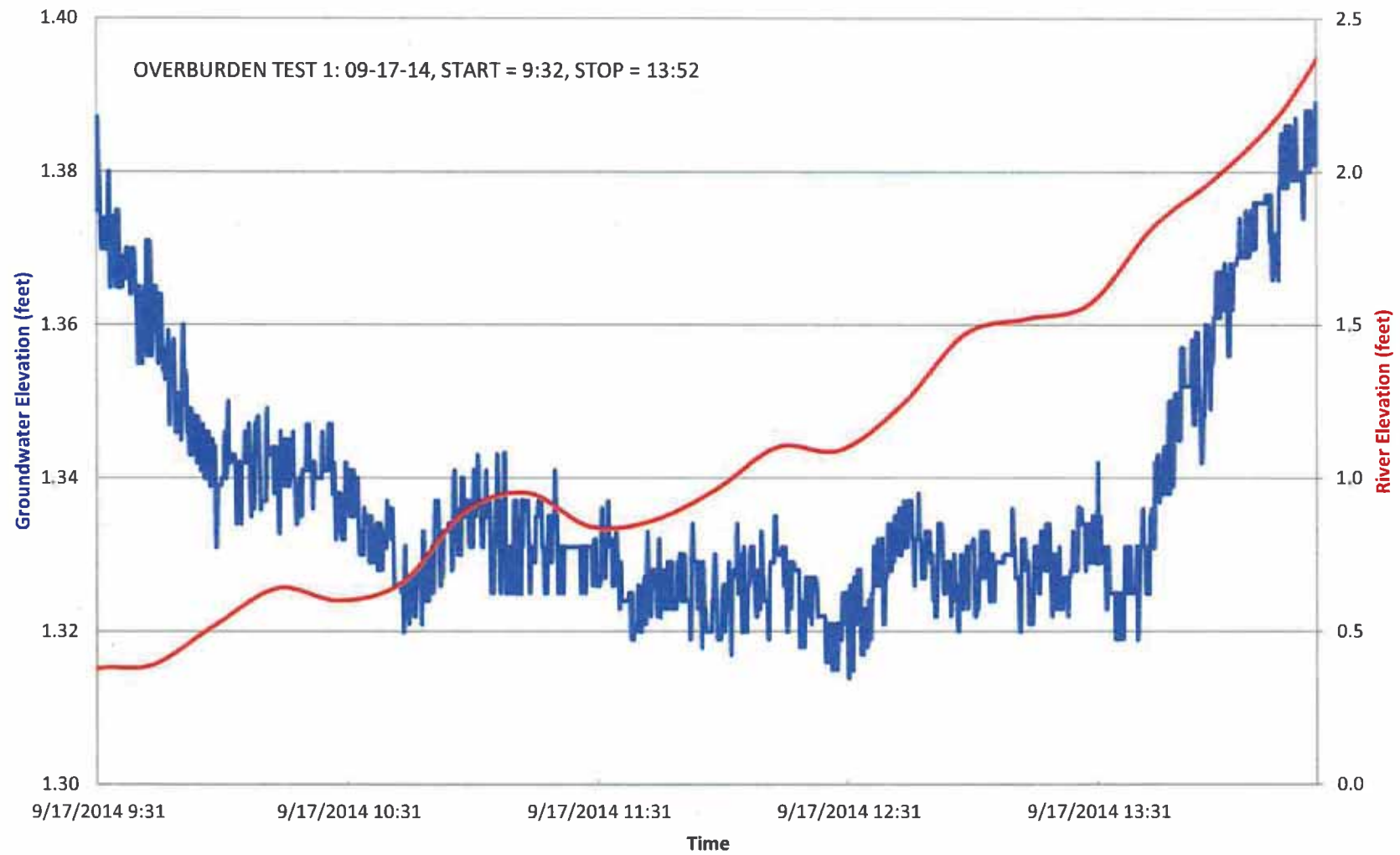


Figure B-35A
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-18D

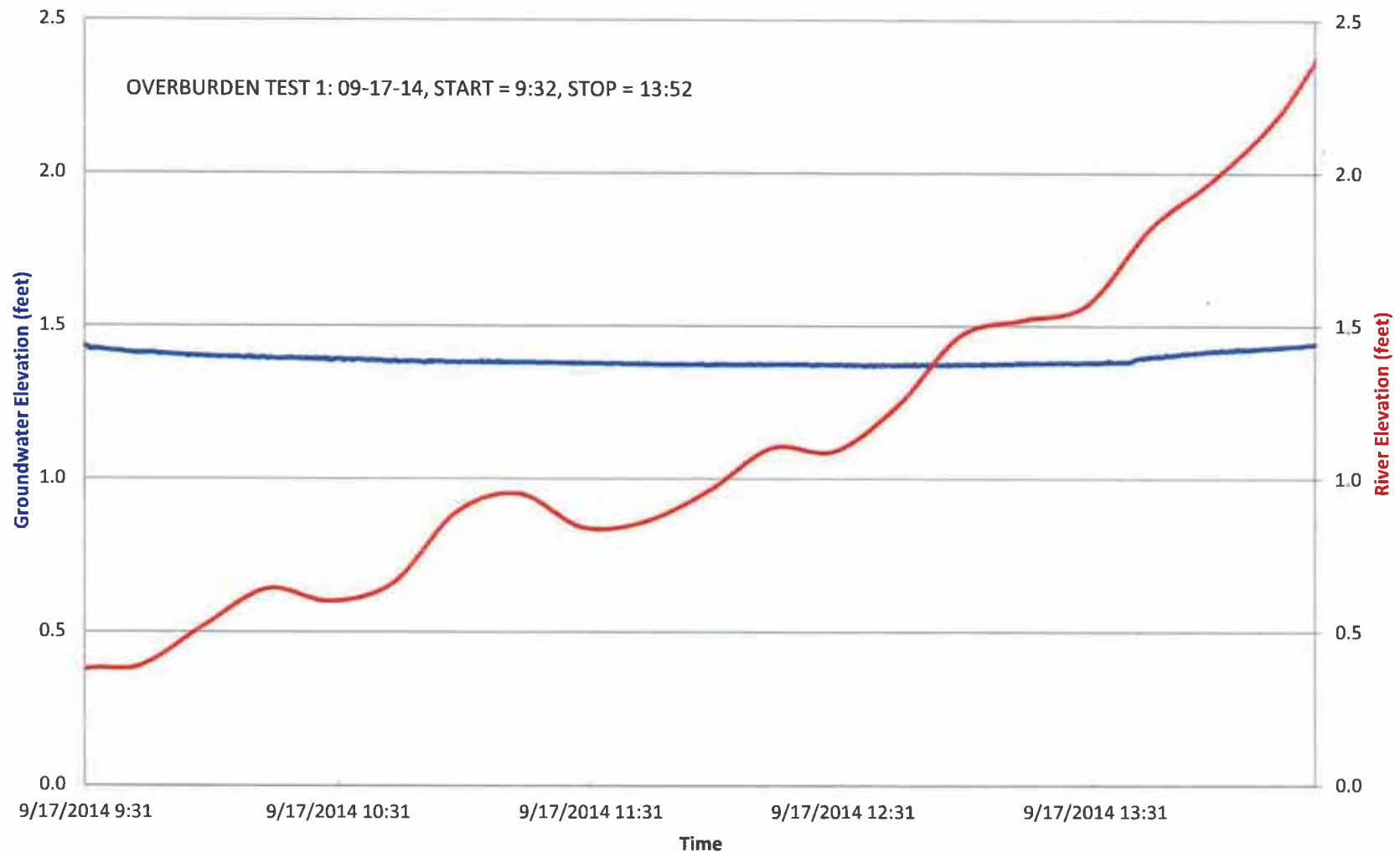


Figure B-35B
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-18D

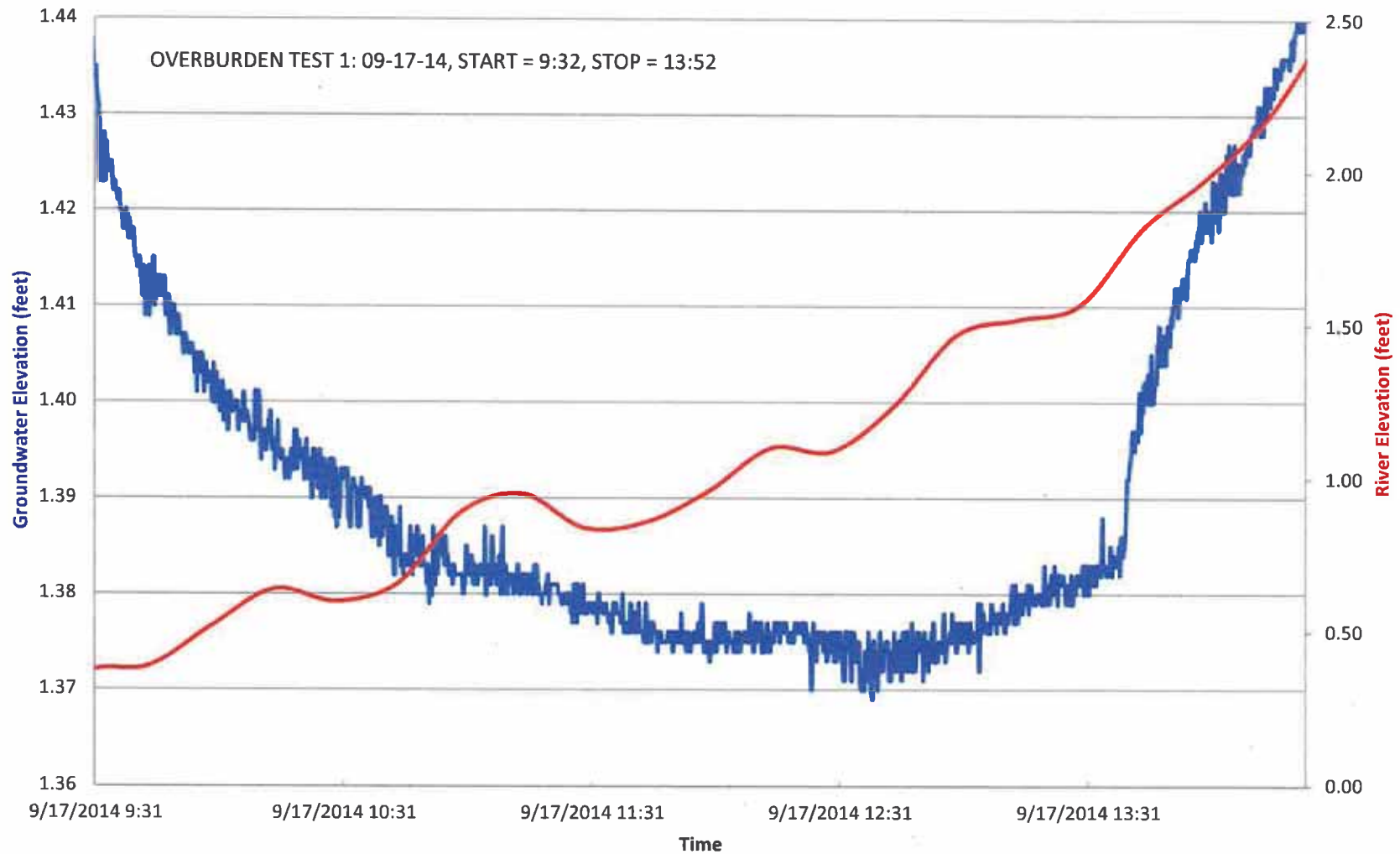


Figure B-36A
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-26B

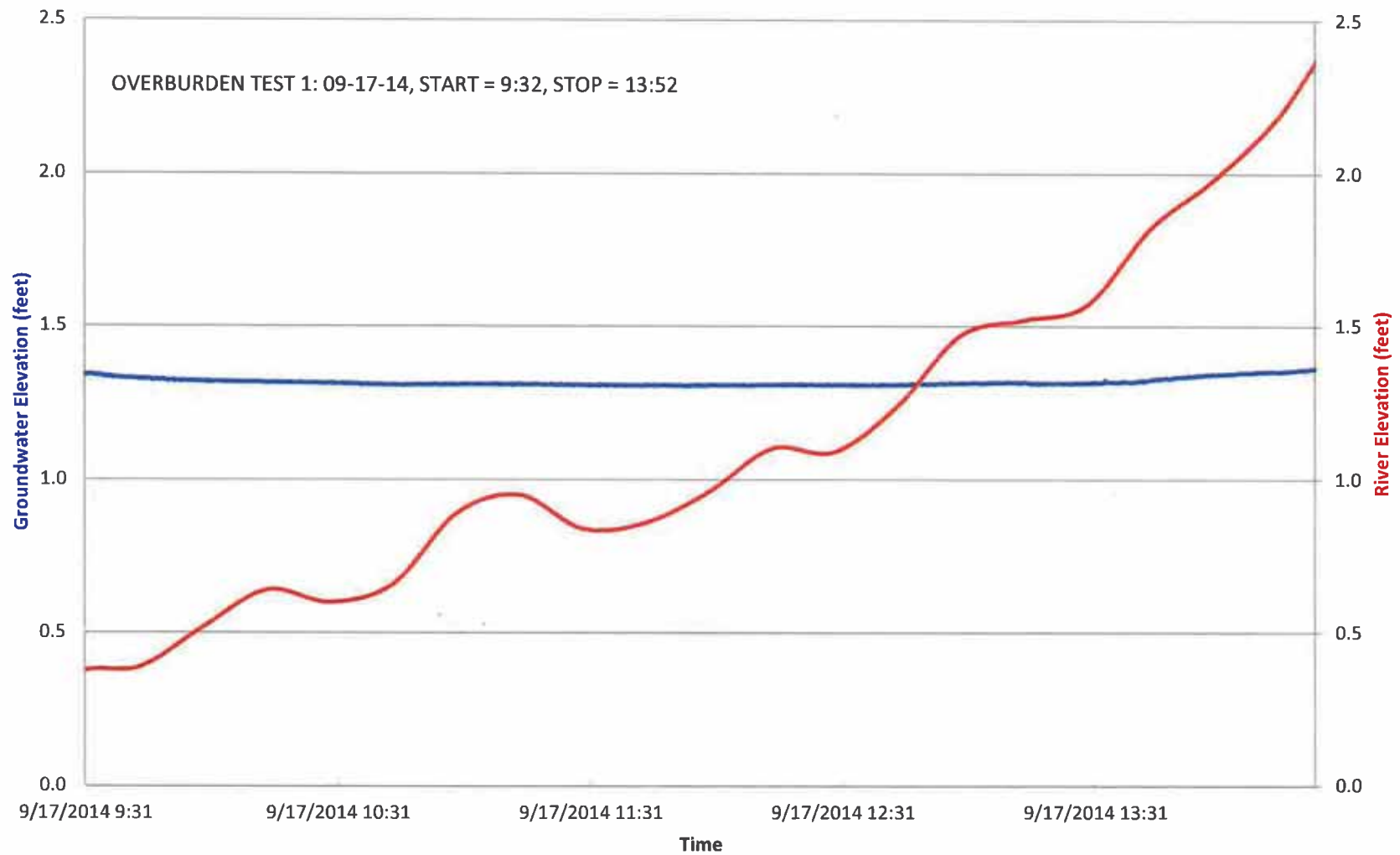


Figure B-36B
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-26B

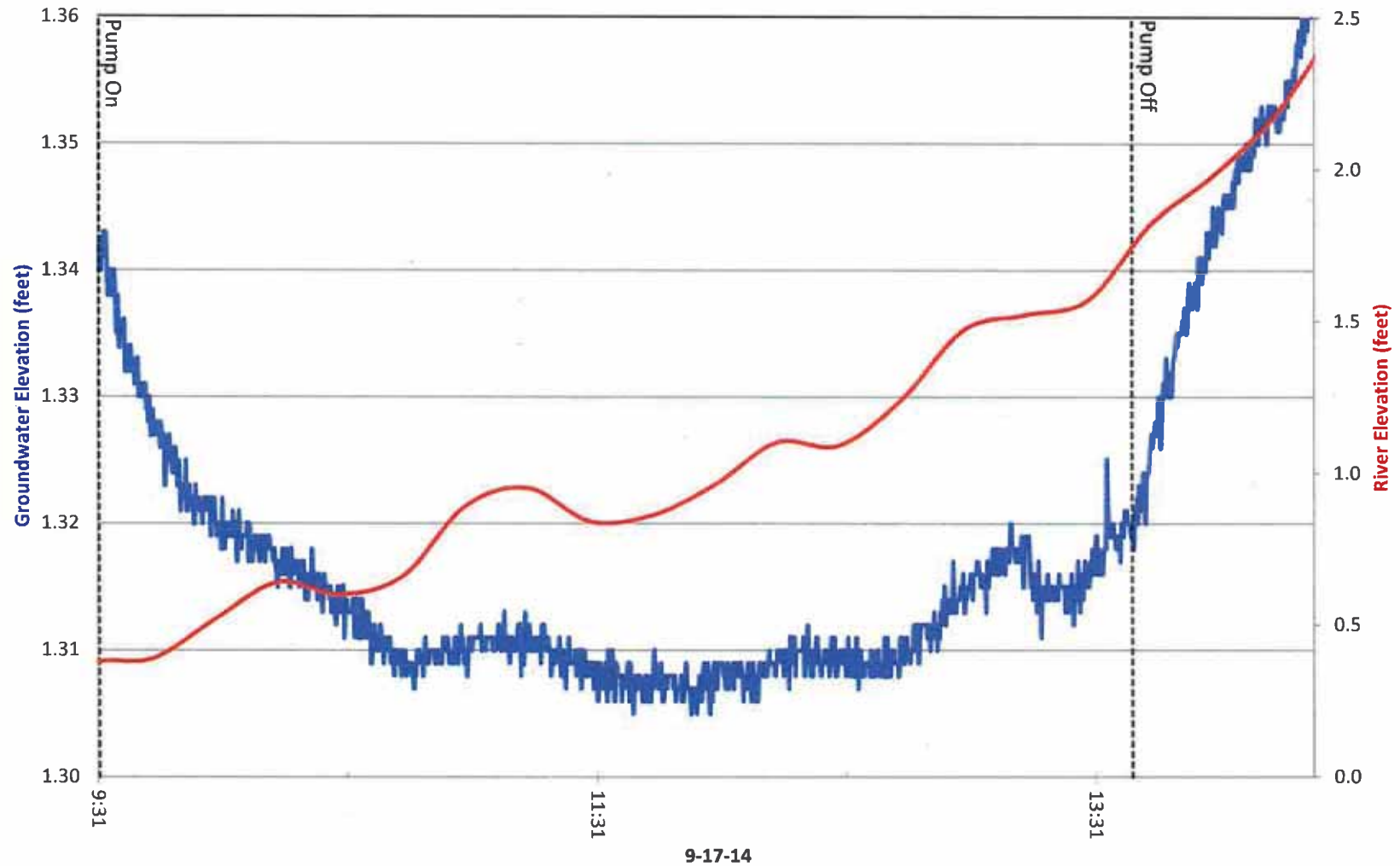


Figure B-37
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-27B

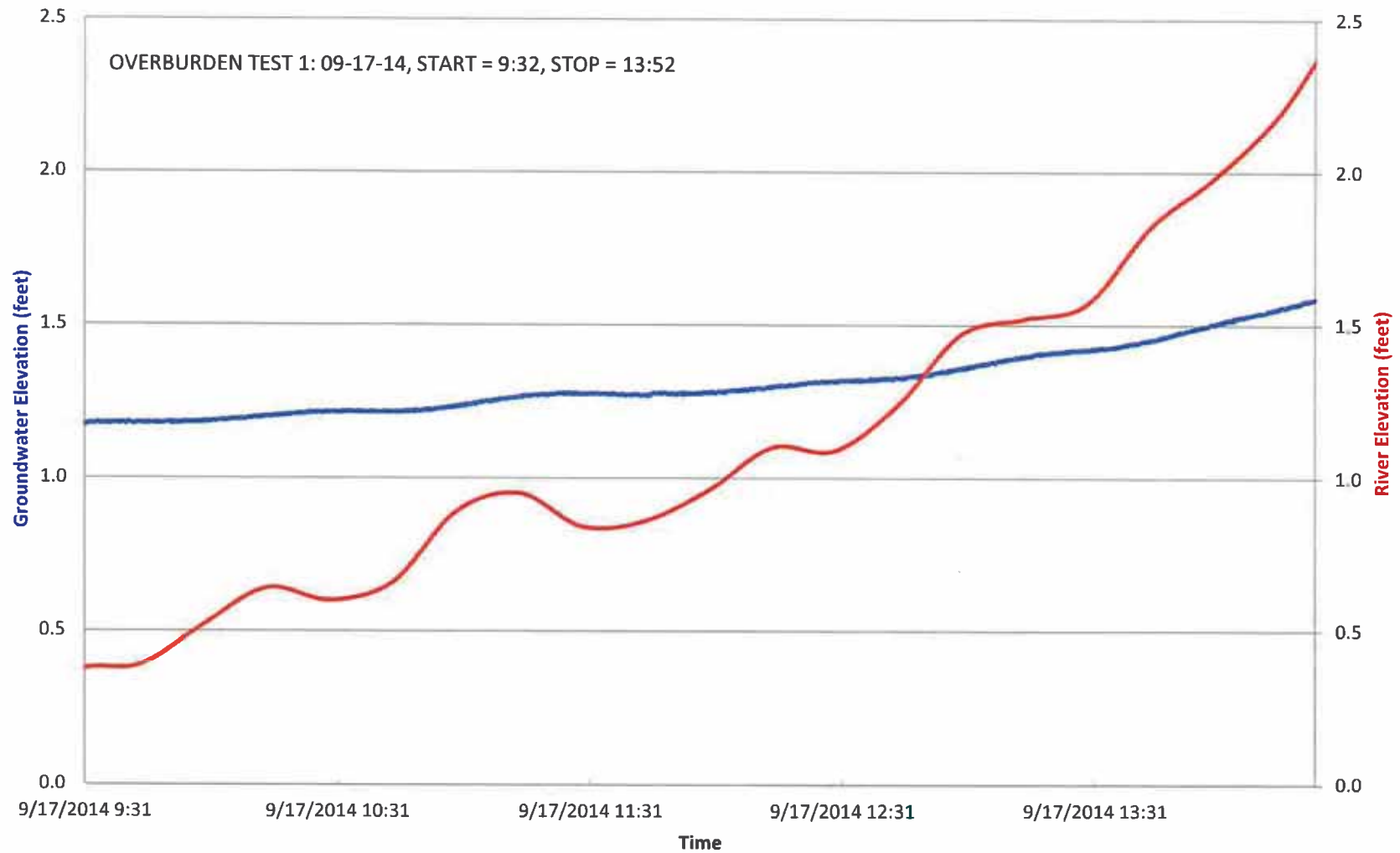


Figure B-38
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-28B

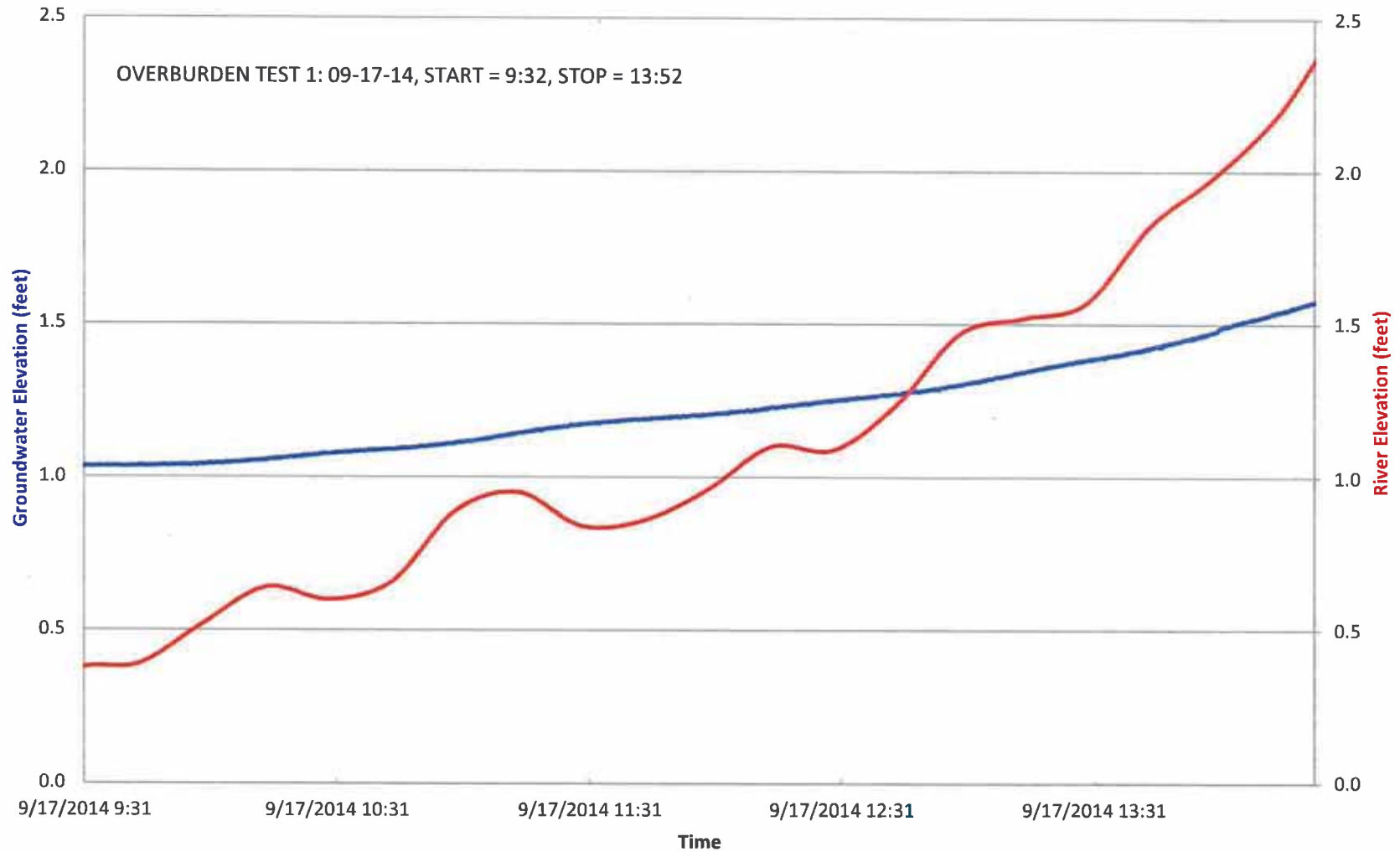


Figure B-39A
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-103B

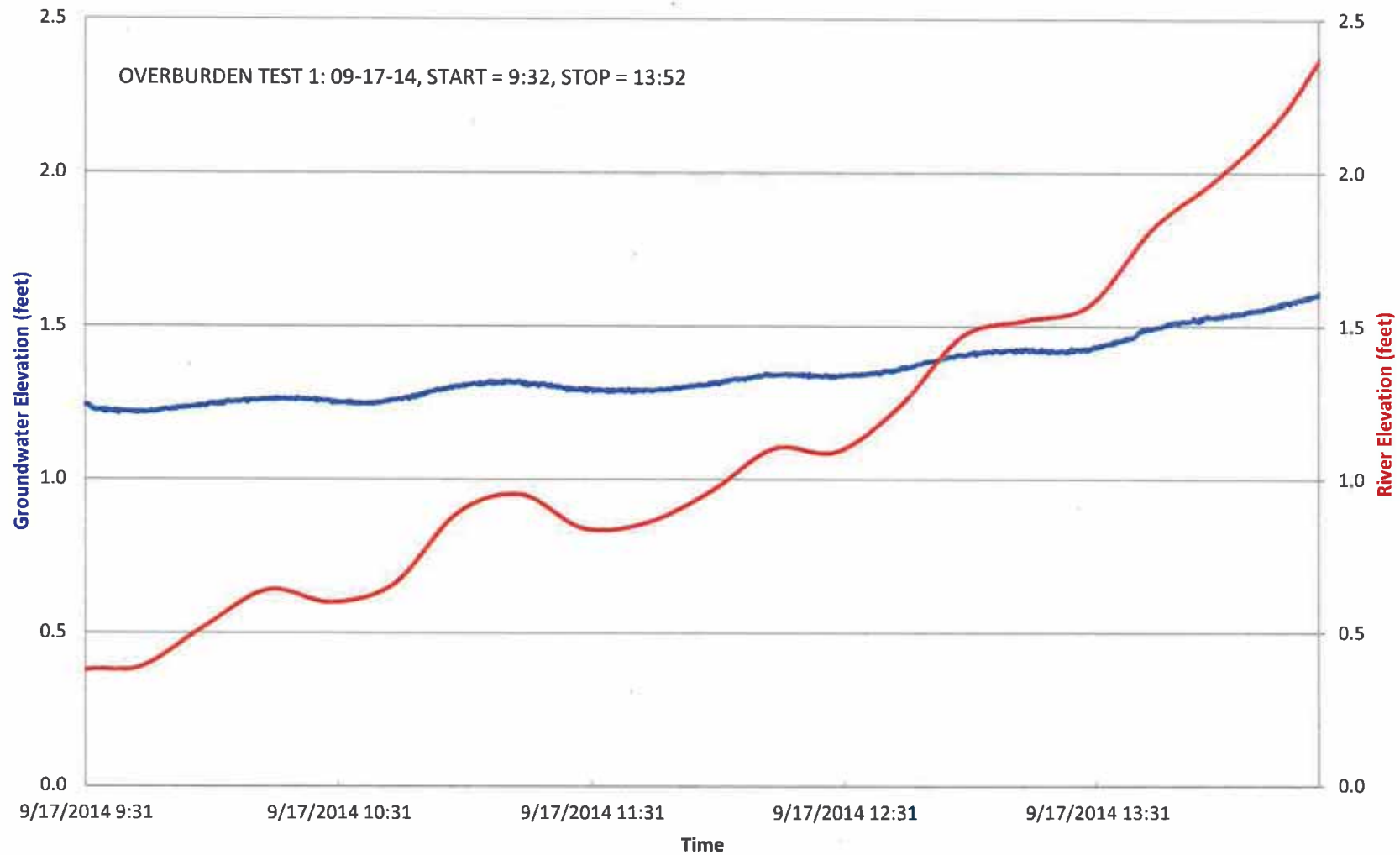


Figure B-39B
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in MW-103B

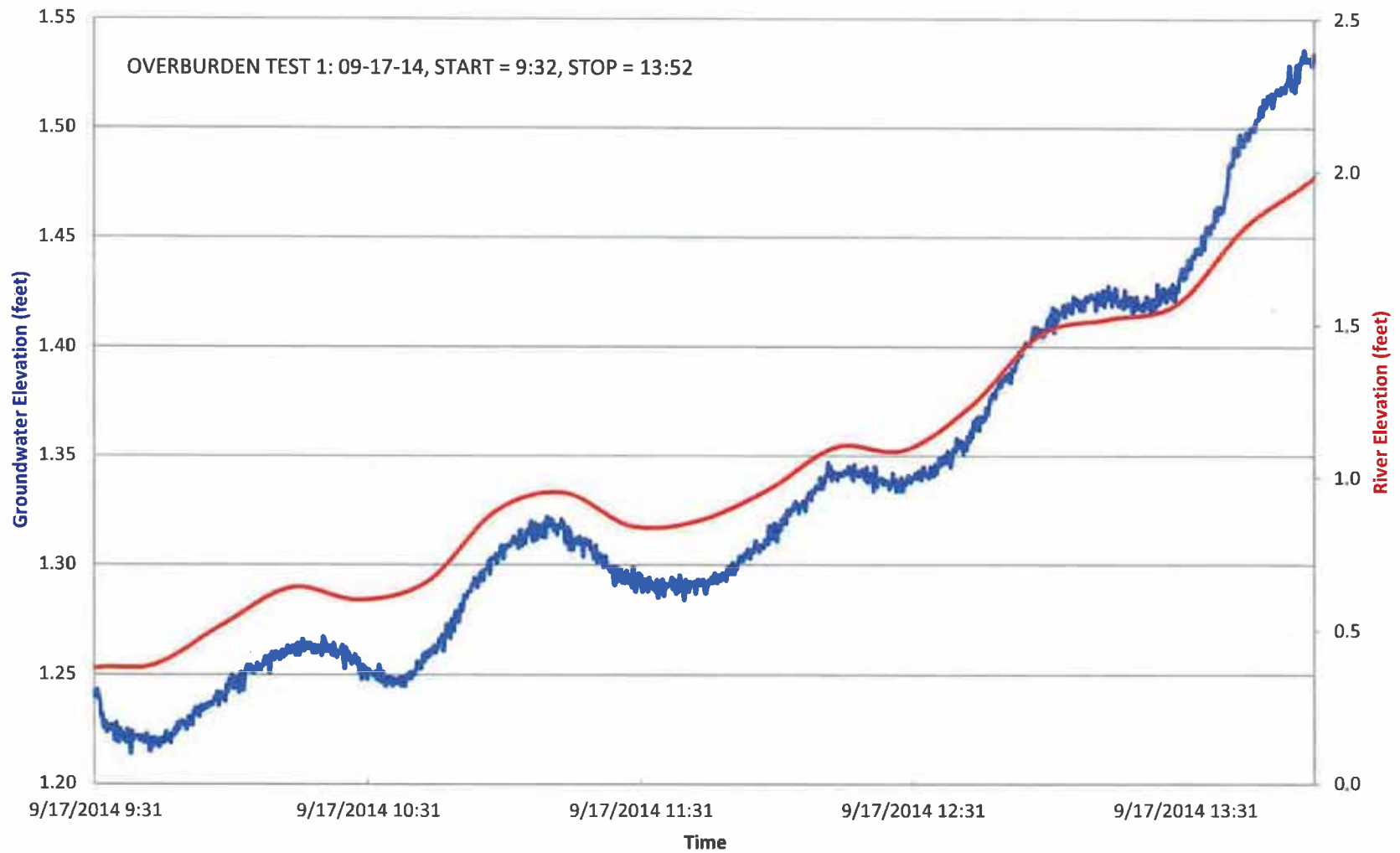


Figure B-40
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in GZ-101D

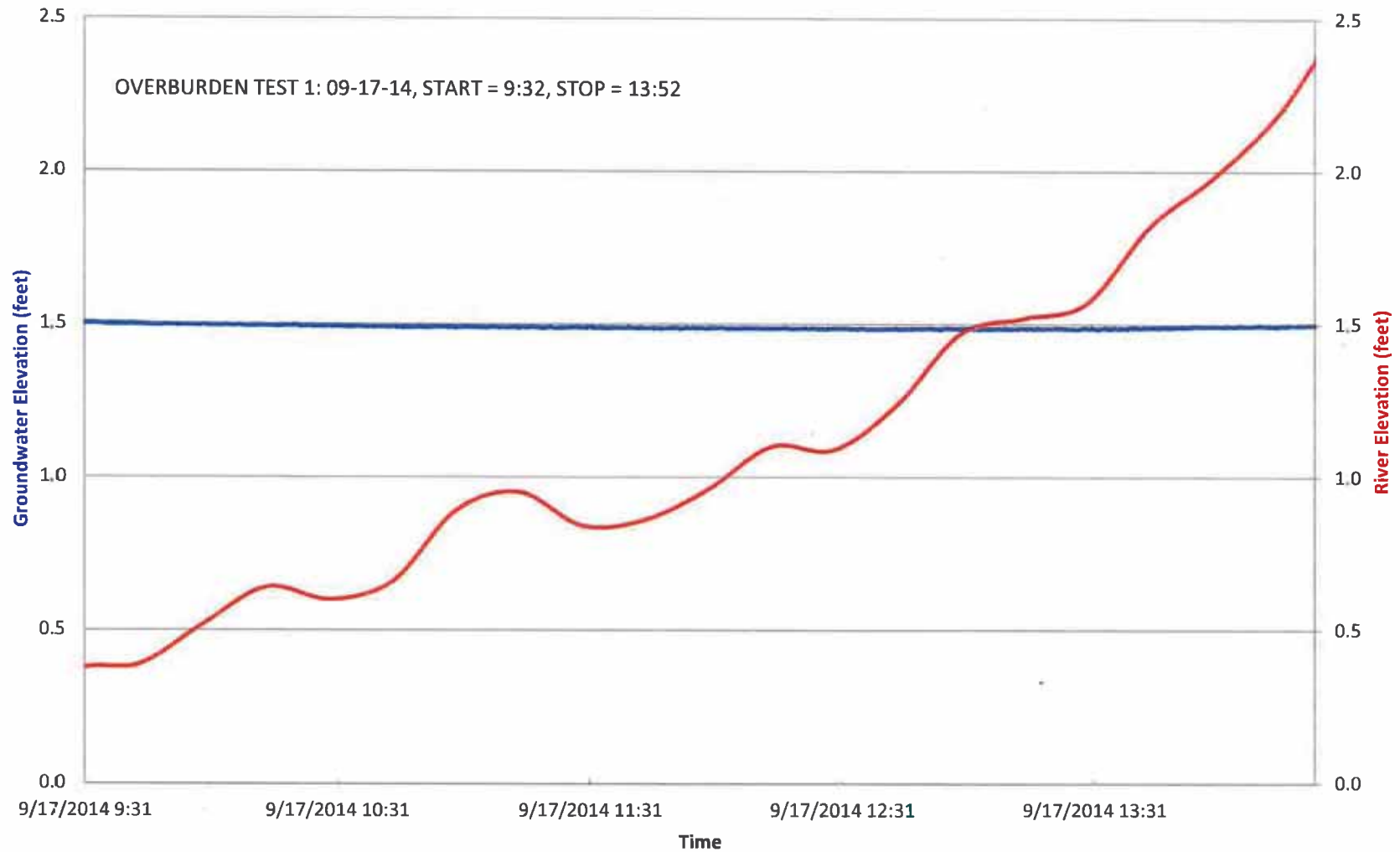


Figure B-41A
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in GZ-102S



Figure B-41B
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in GZ-102S



Figure B-42A
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in GZ-102D

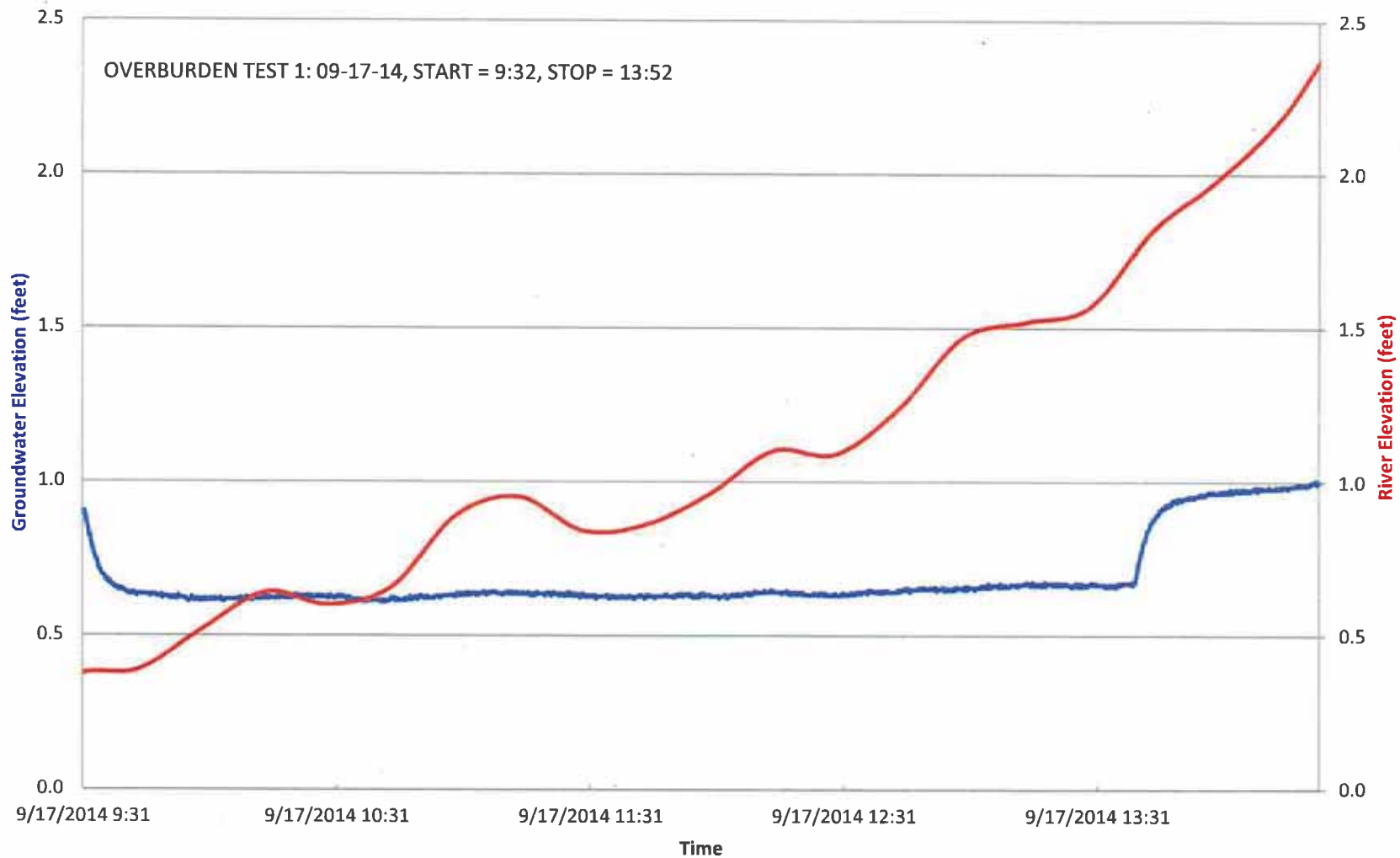


Figure B-42B
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in GZ-102D

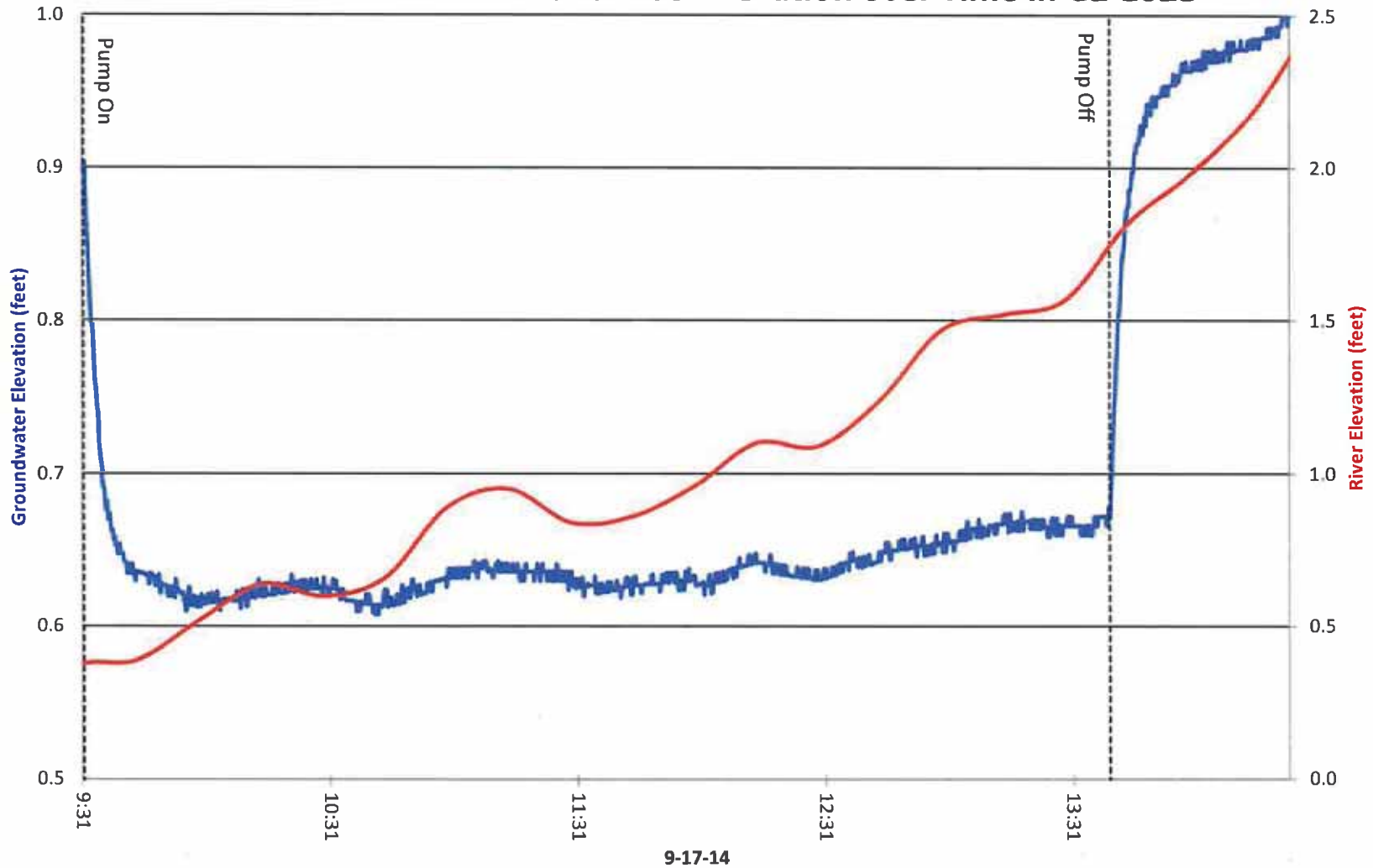


Figure B-43
MW-6 Pumping Test
Groundwater Elevation and River Elevation over Time in GZ-103D

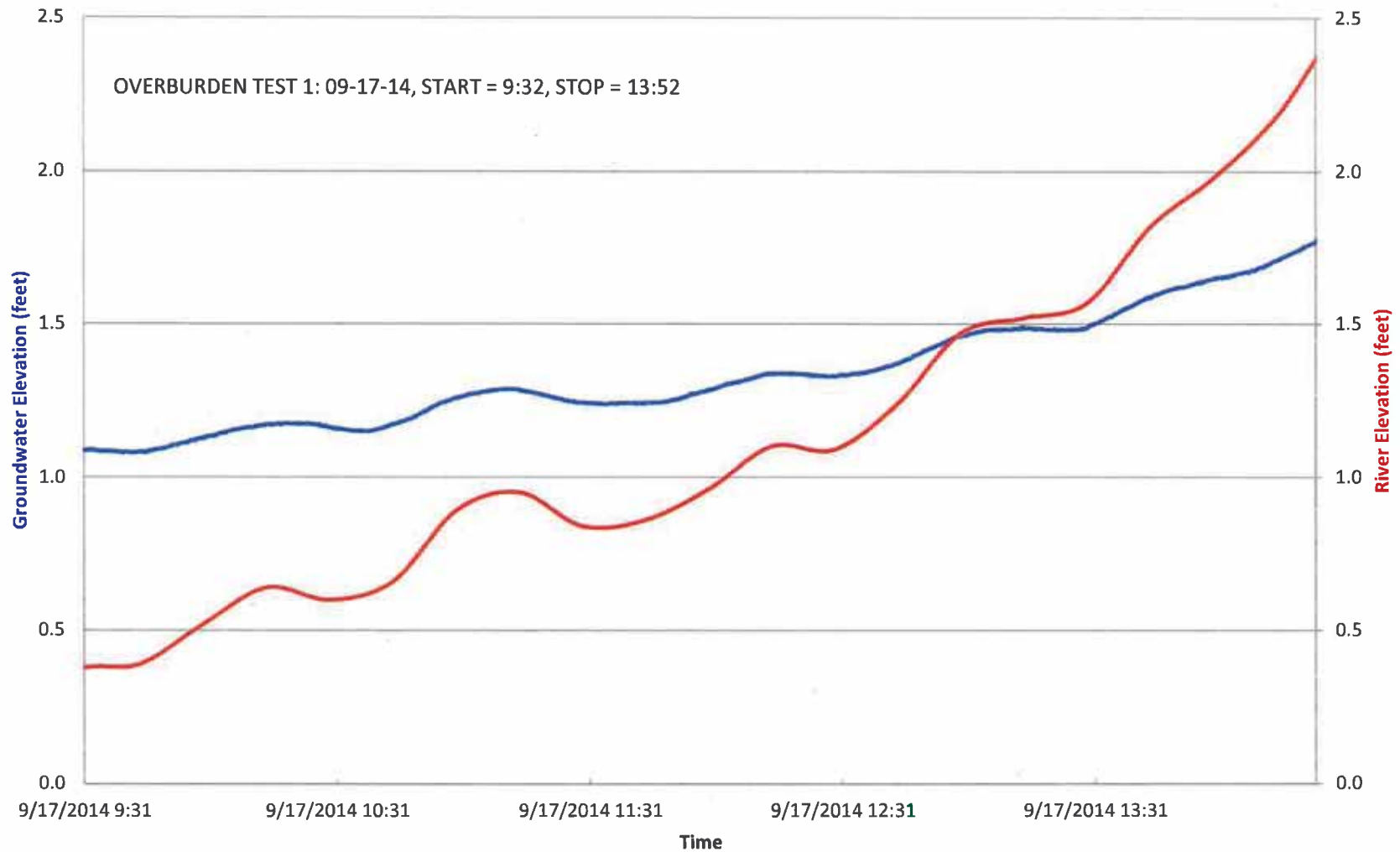


Figure J-44
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-17D

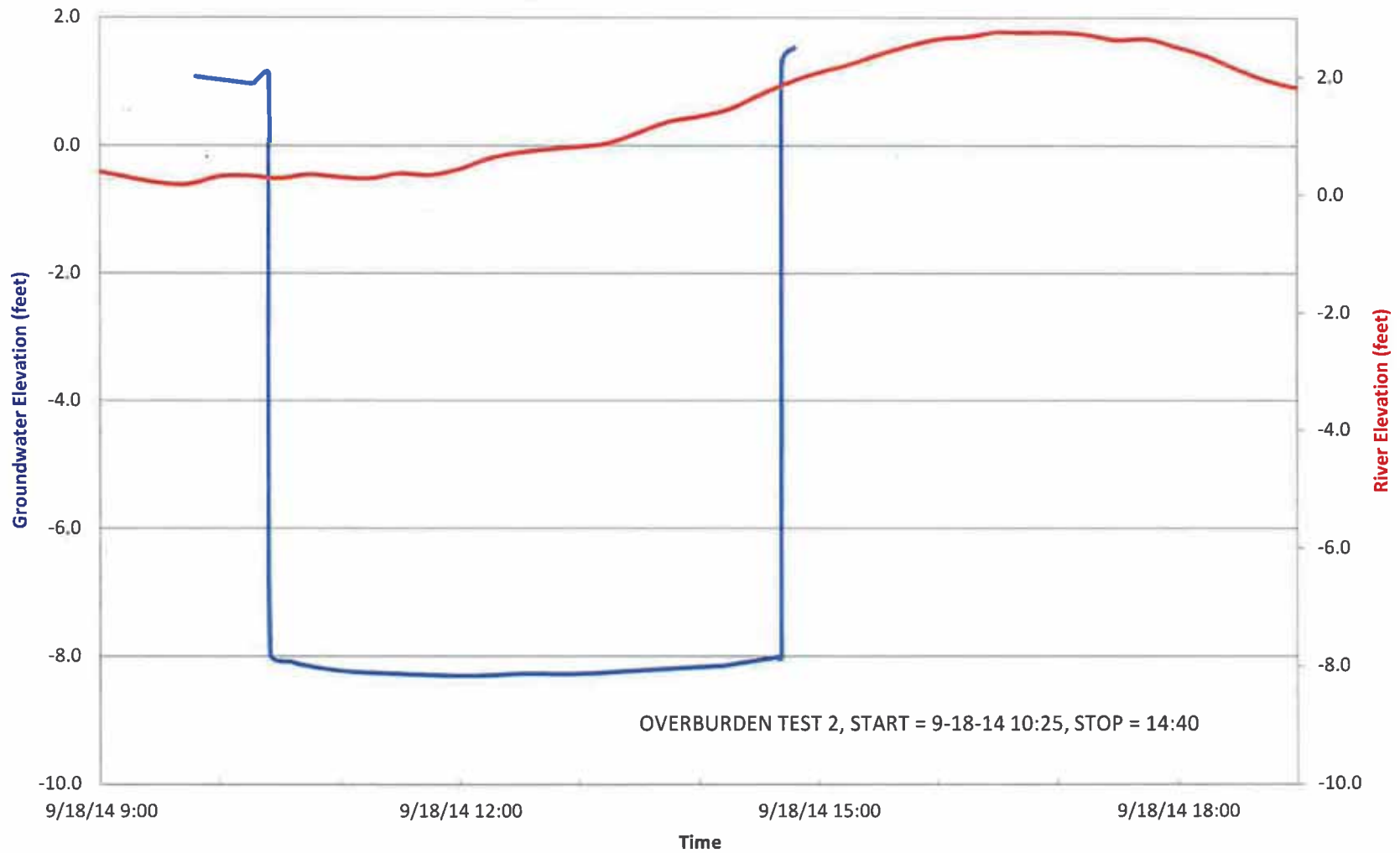


Figure J-45
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-2

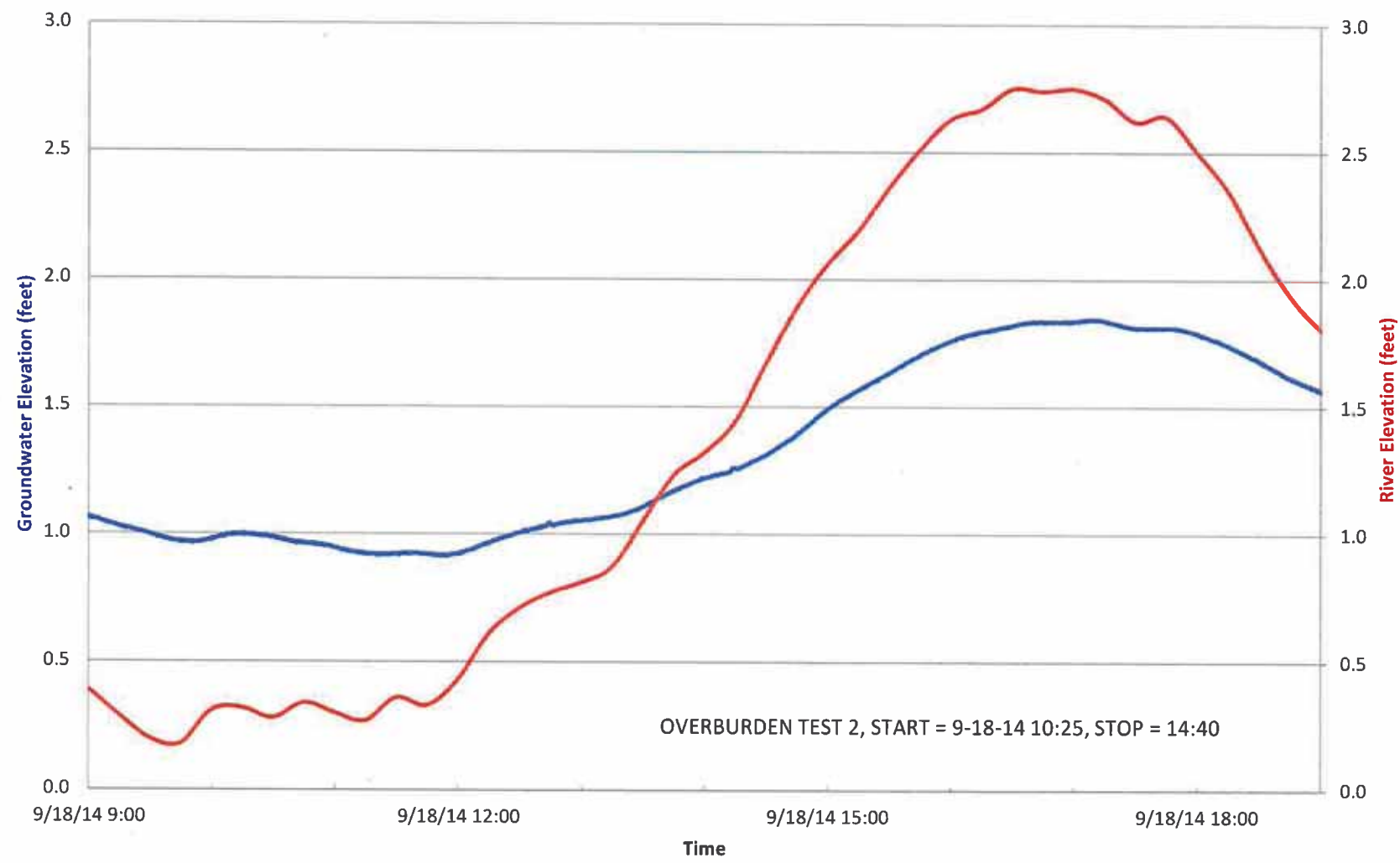


Figure J-46A
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-2B

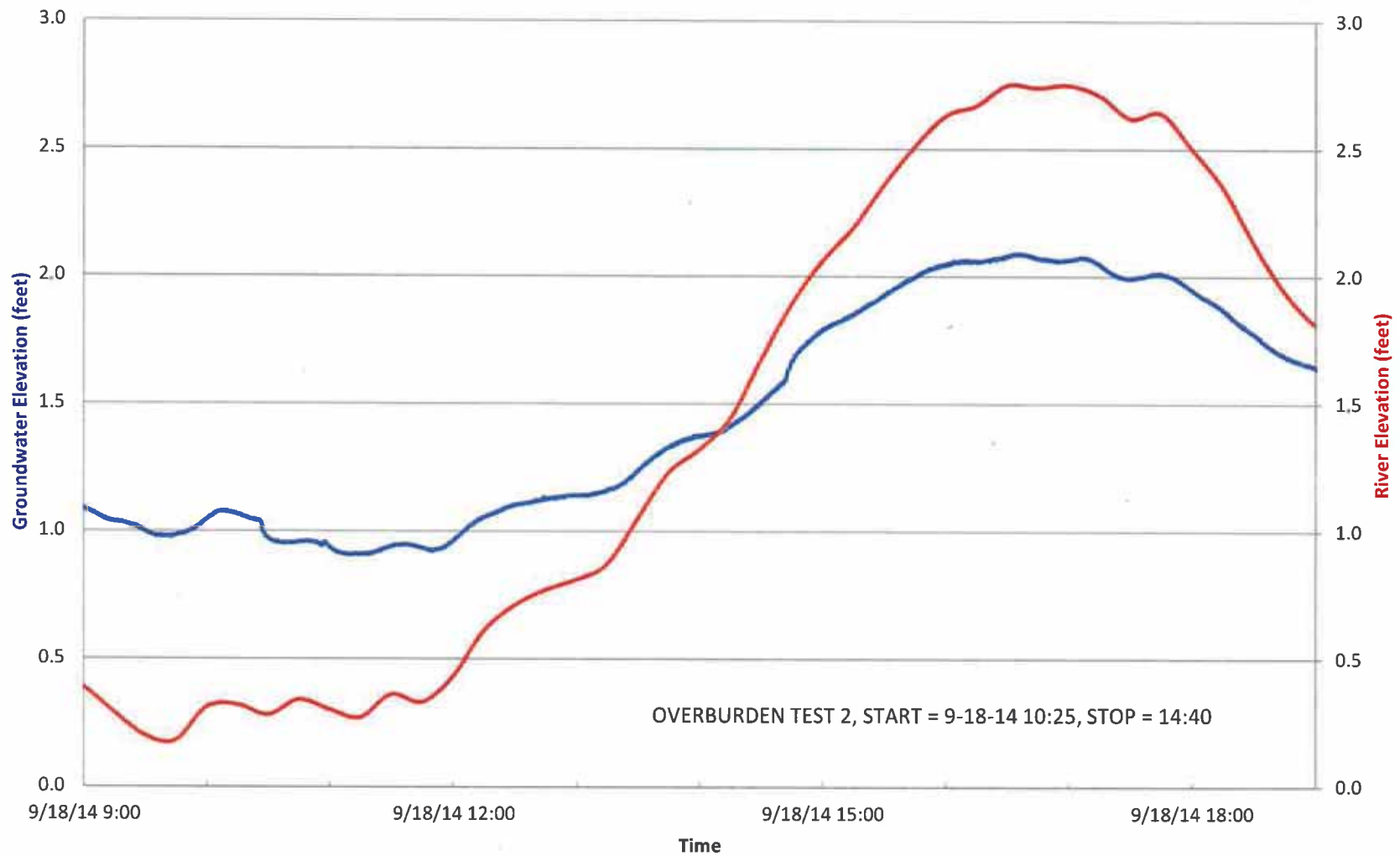


Figure J-46B
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-2B

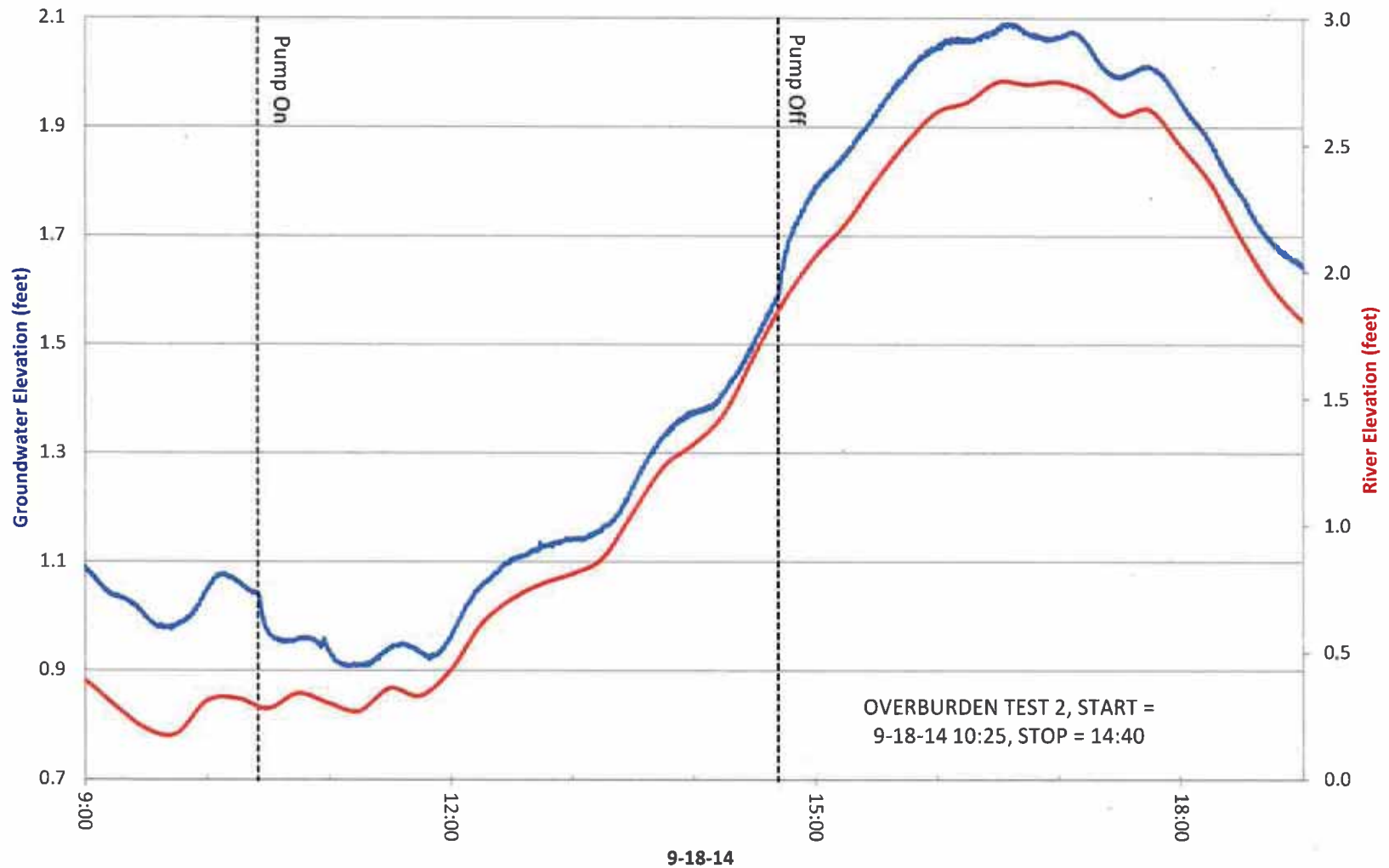


Figure J-47
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-3

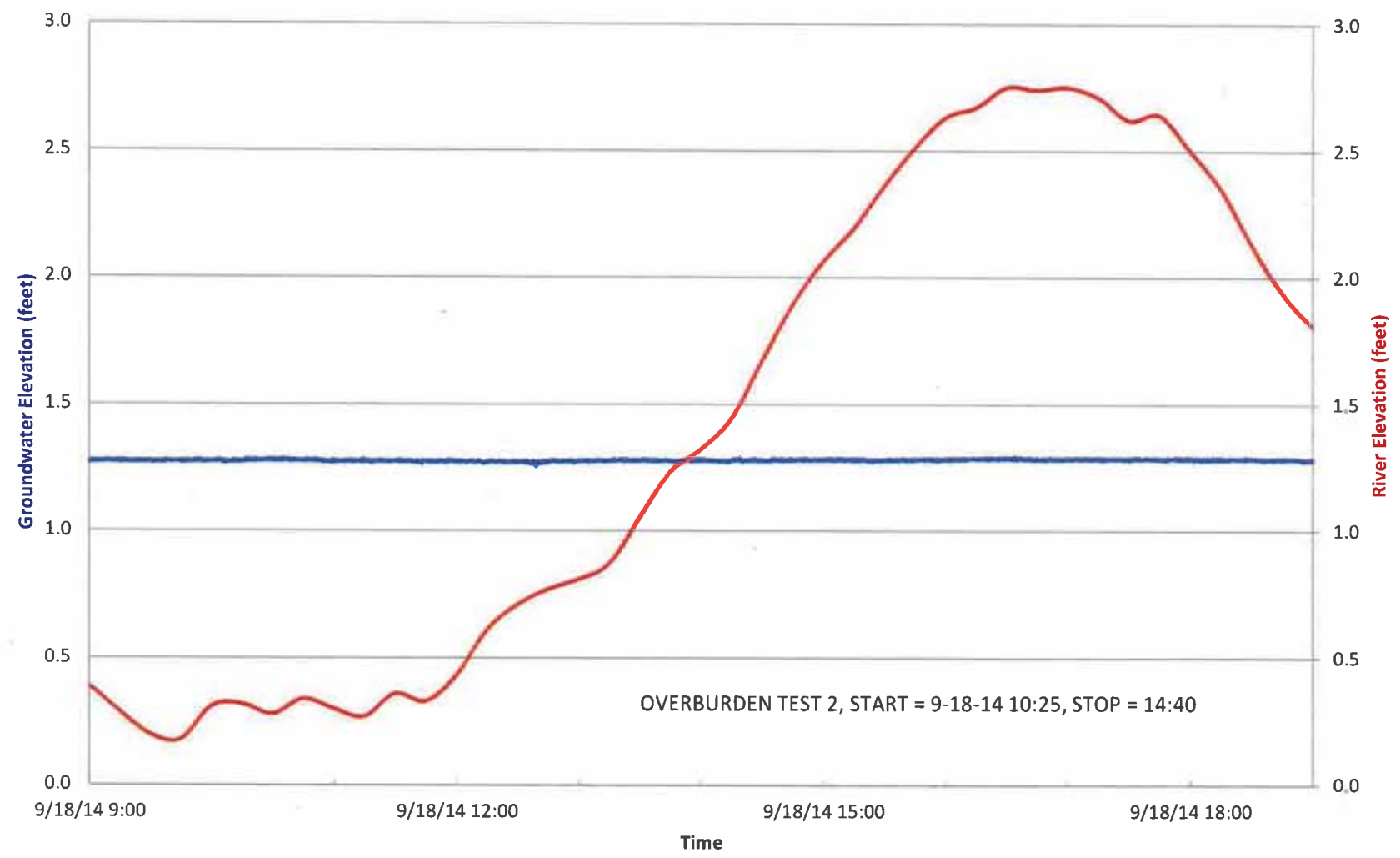


Figure J-48
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-6A

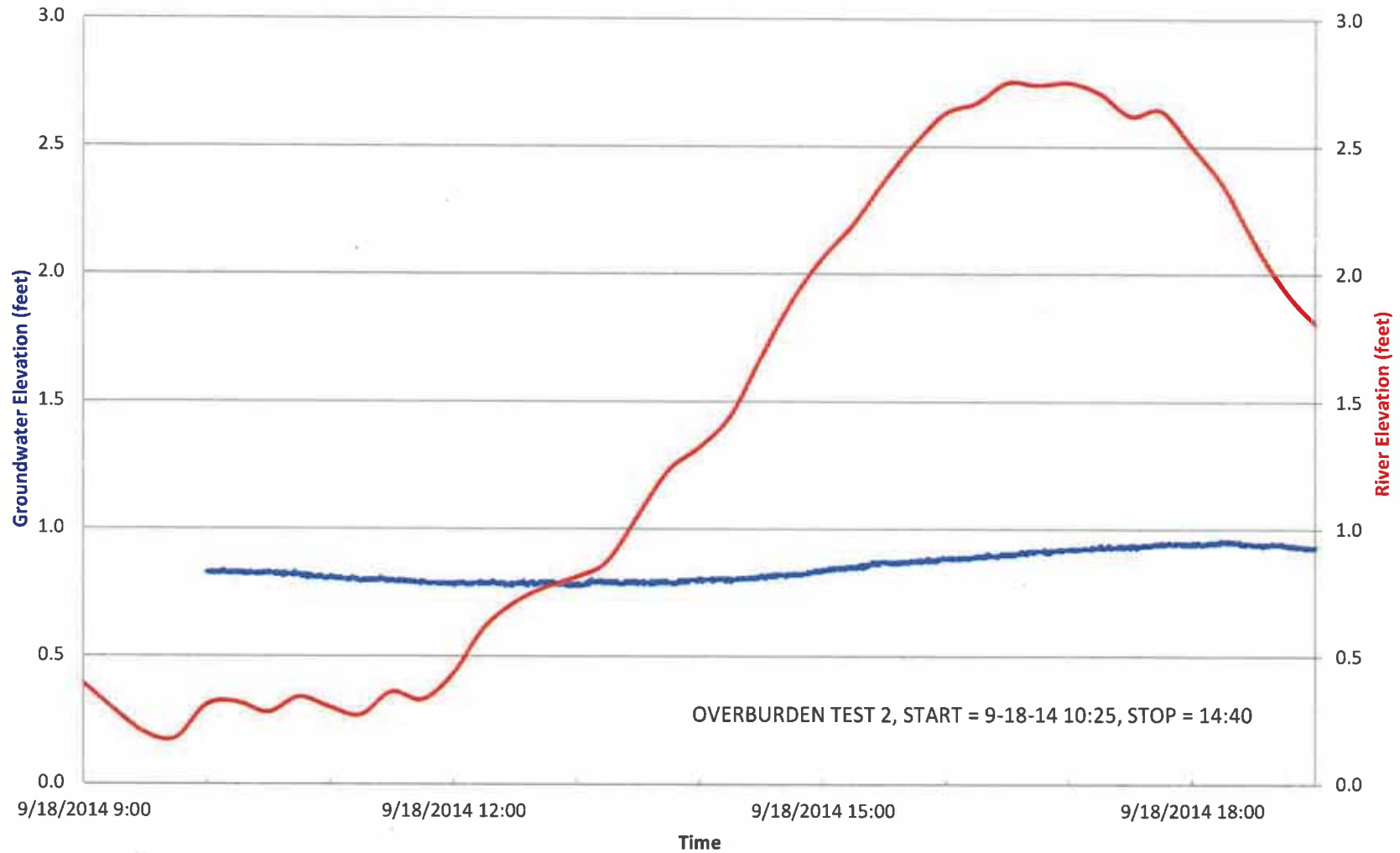


Figure J-49
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-6B

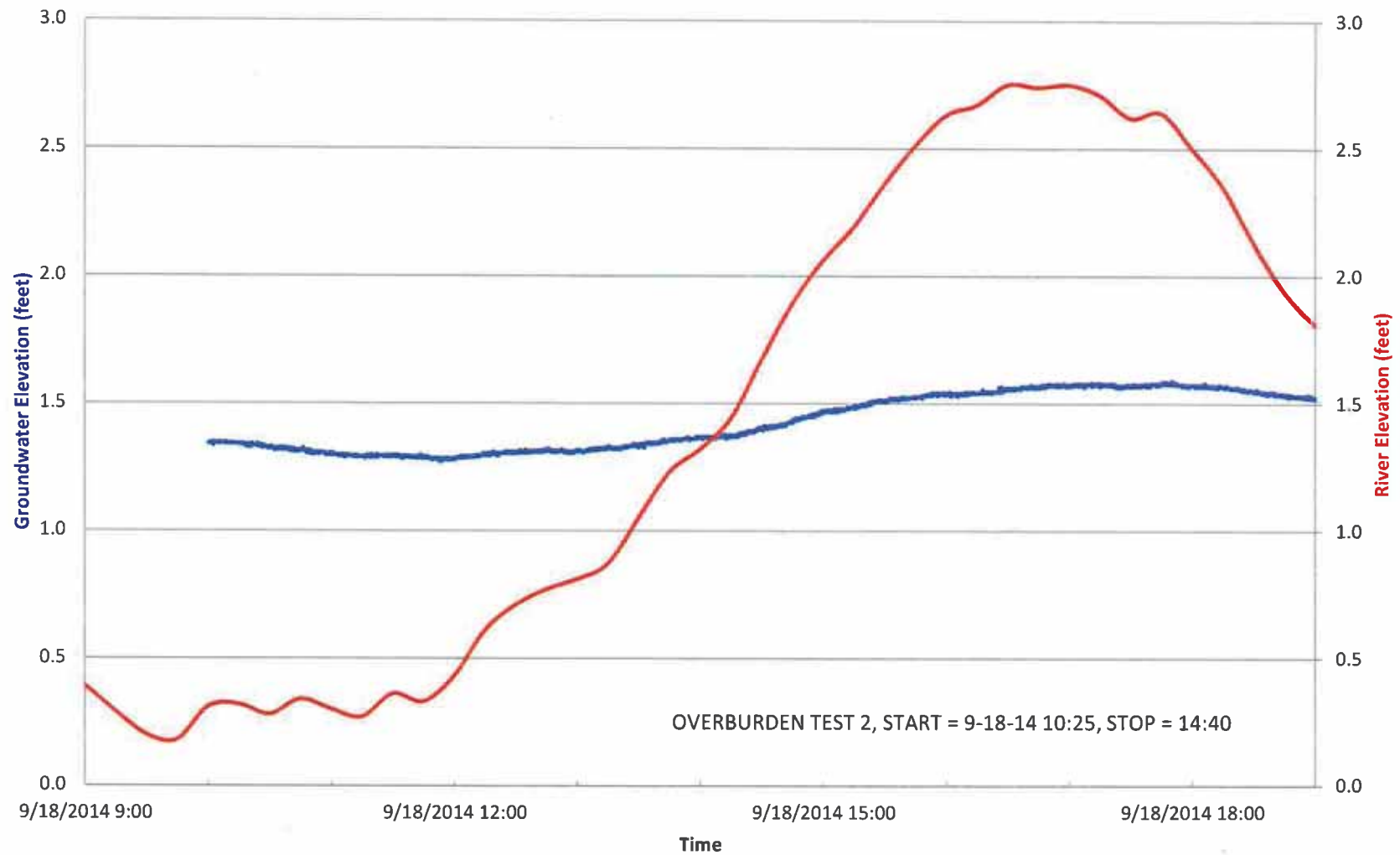


Figure J-50
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-7

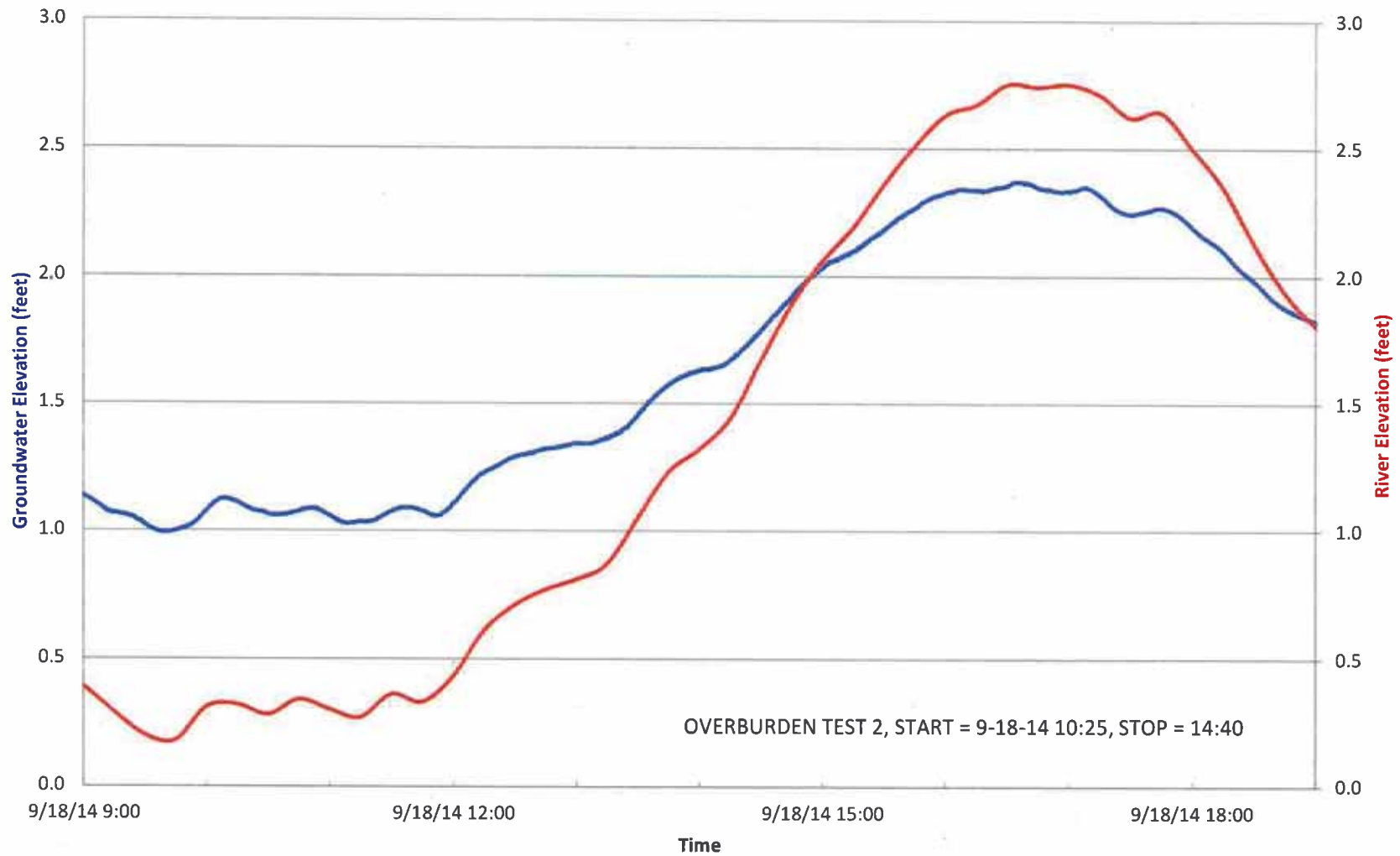


Figure J-51A
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-7B

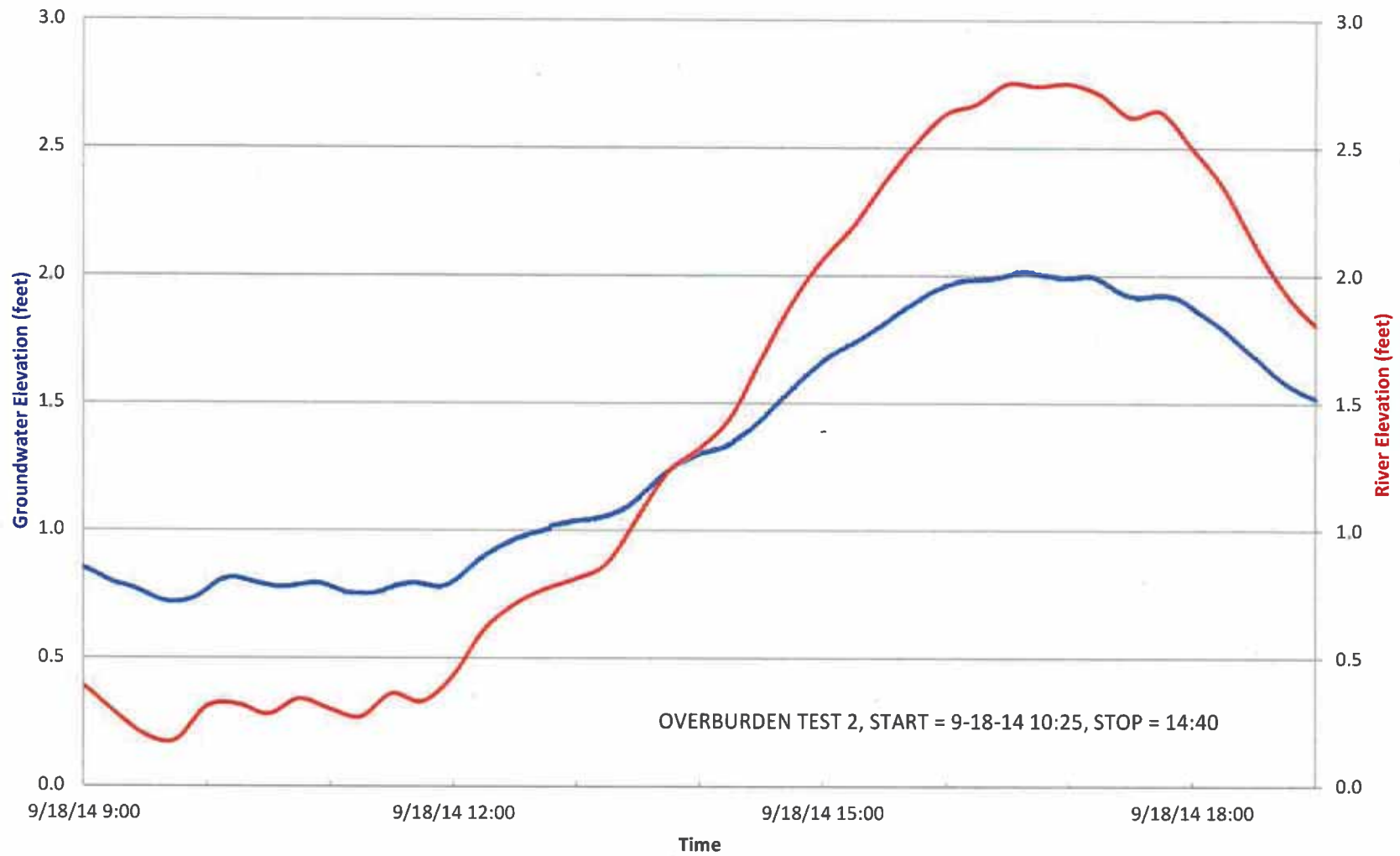


Figure J-51B
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-7B

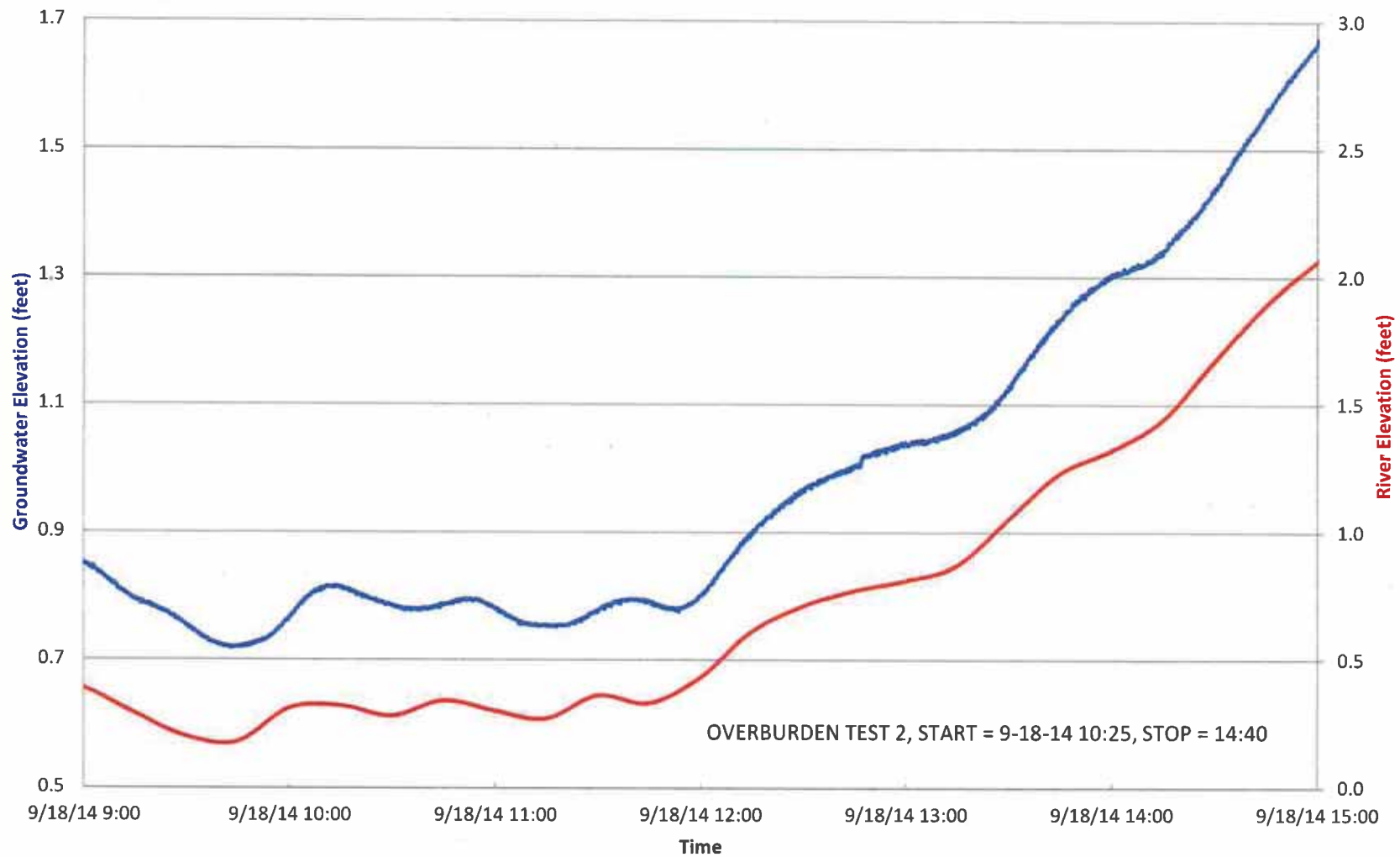


Figure J-52A
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-10D

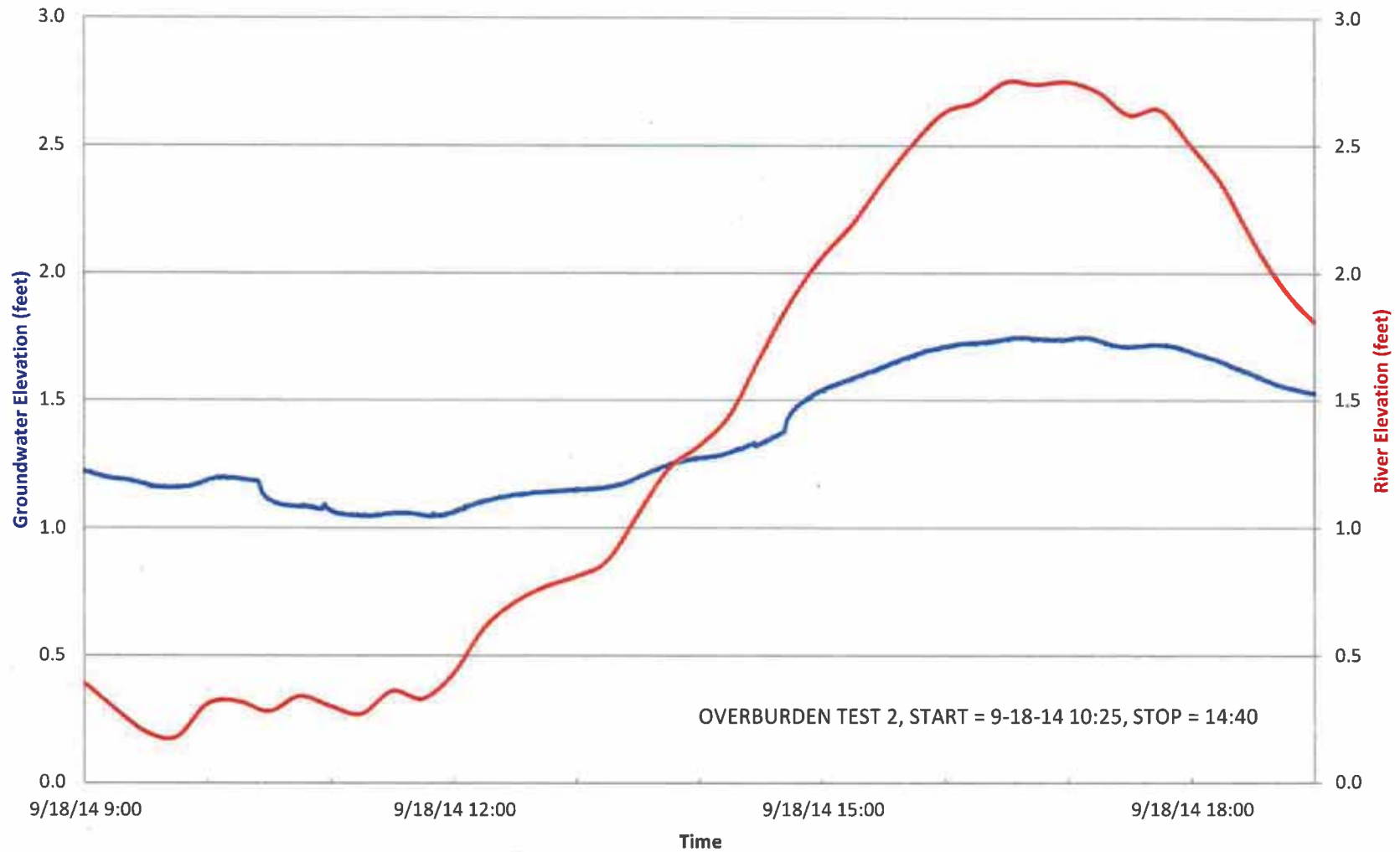
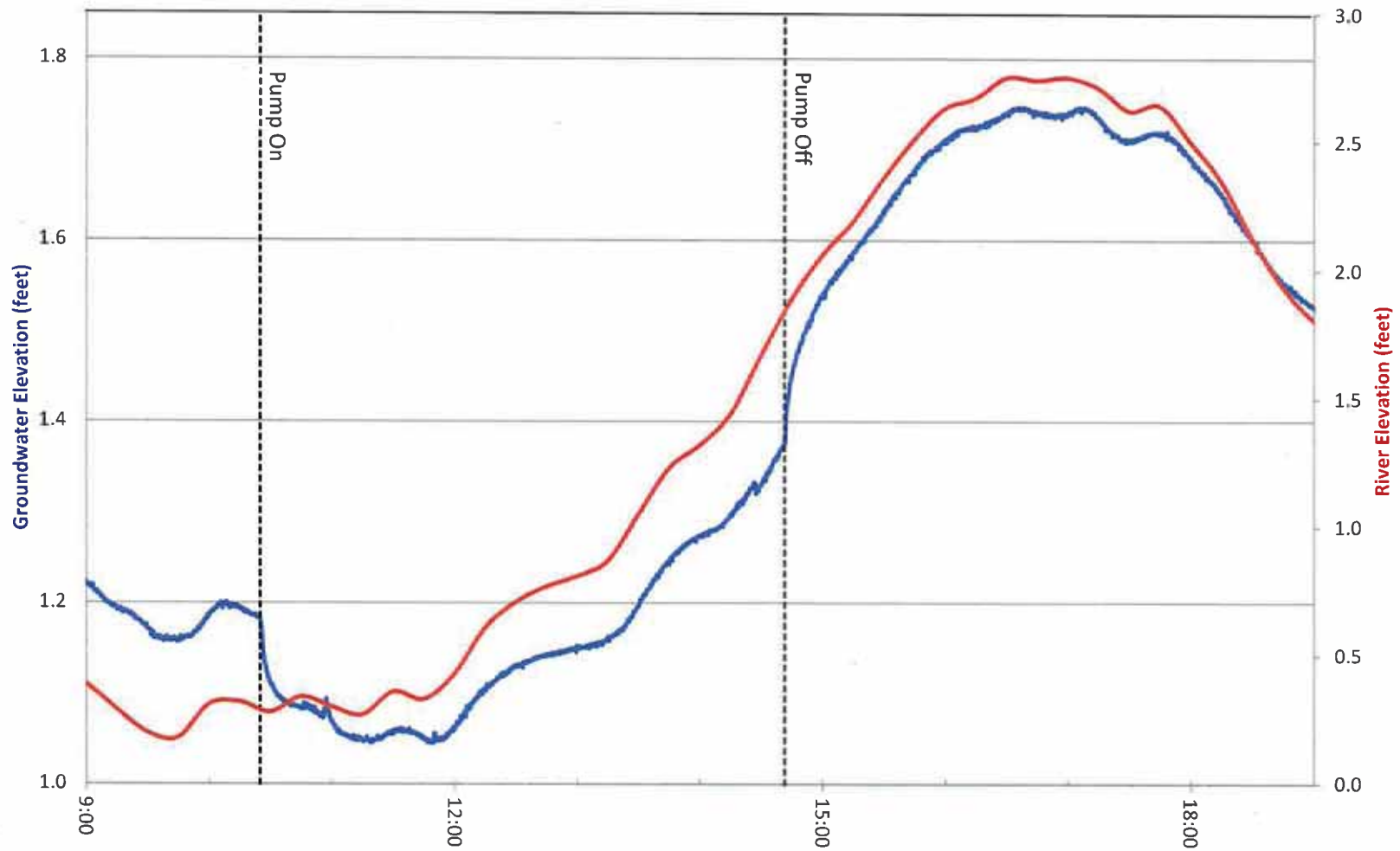


Figure J-52B
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-10D



9-18-14

Figure J-53
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-15D

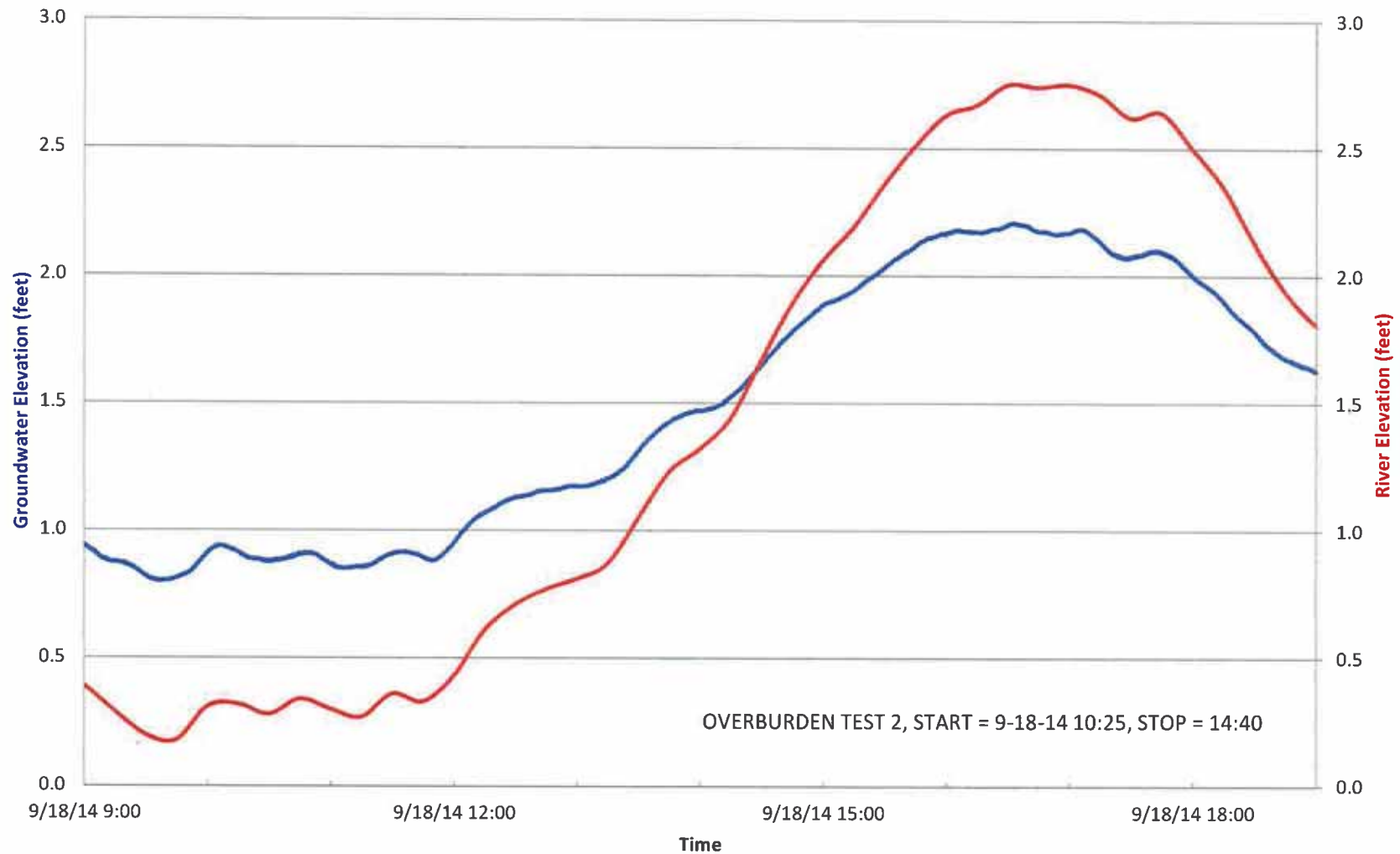


Figure J-54A
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-17B

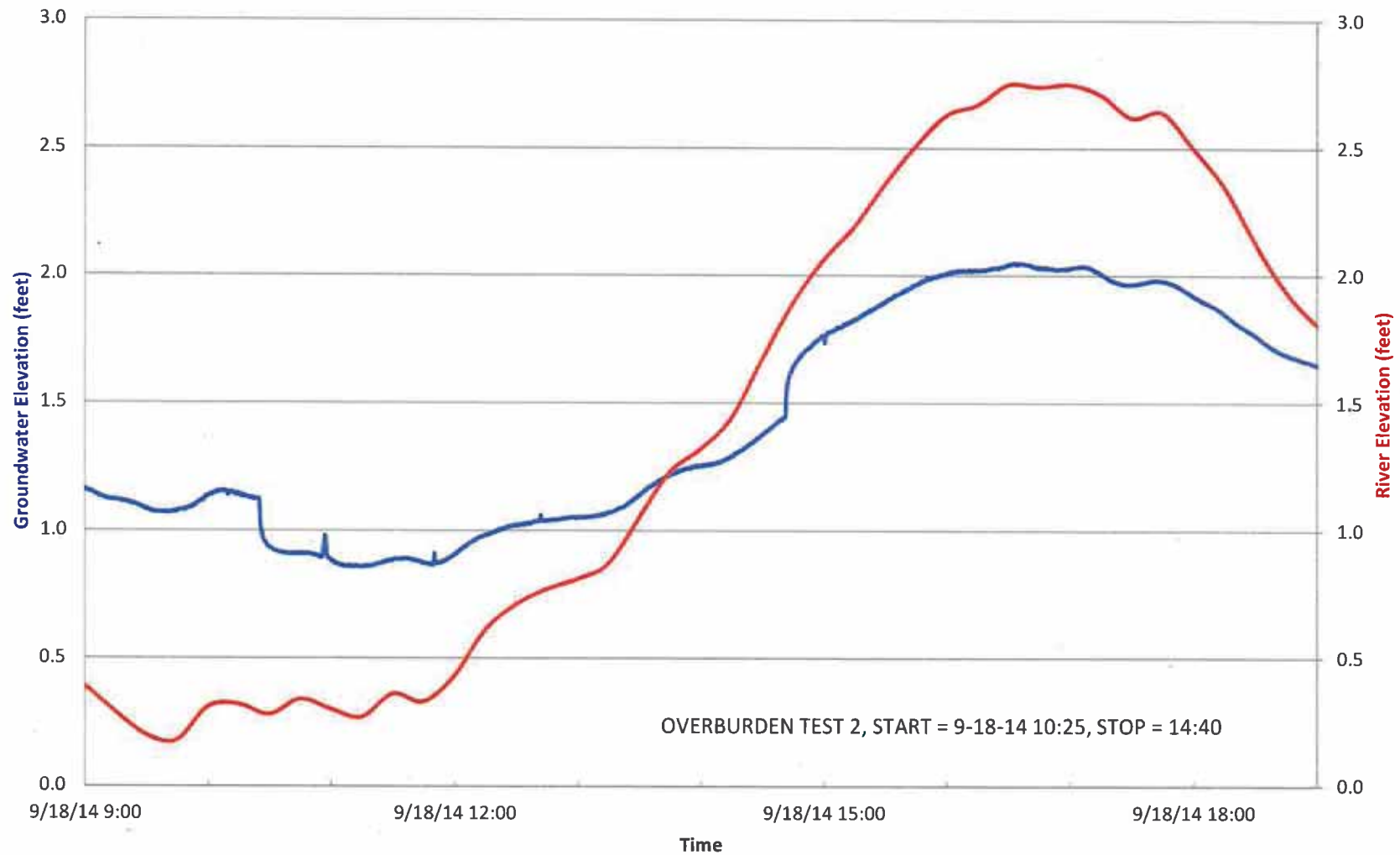


Figure J-54B
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-17B

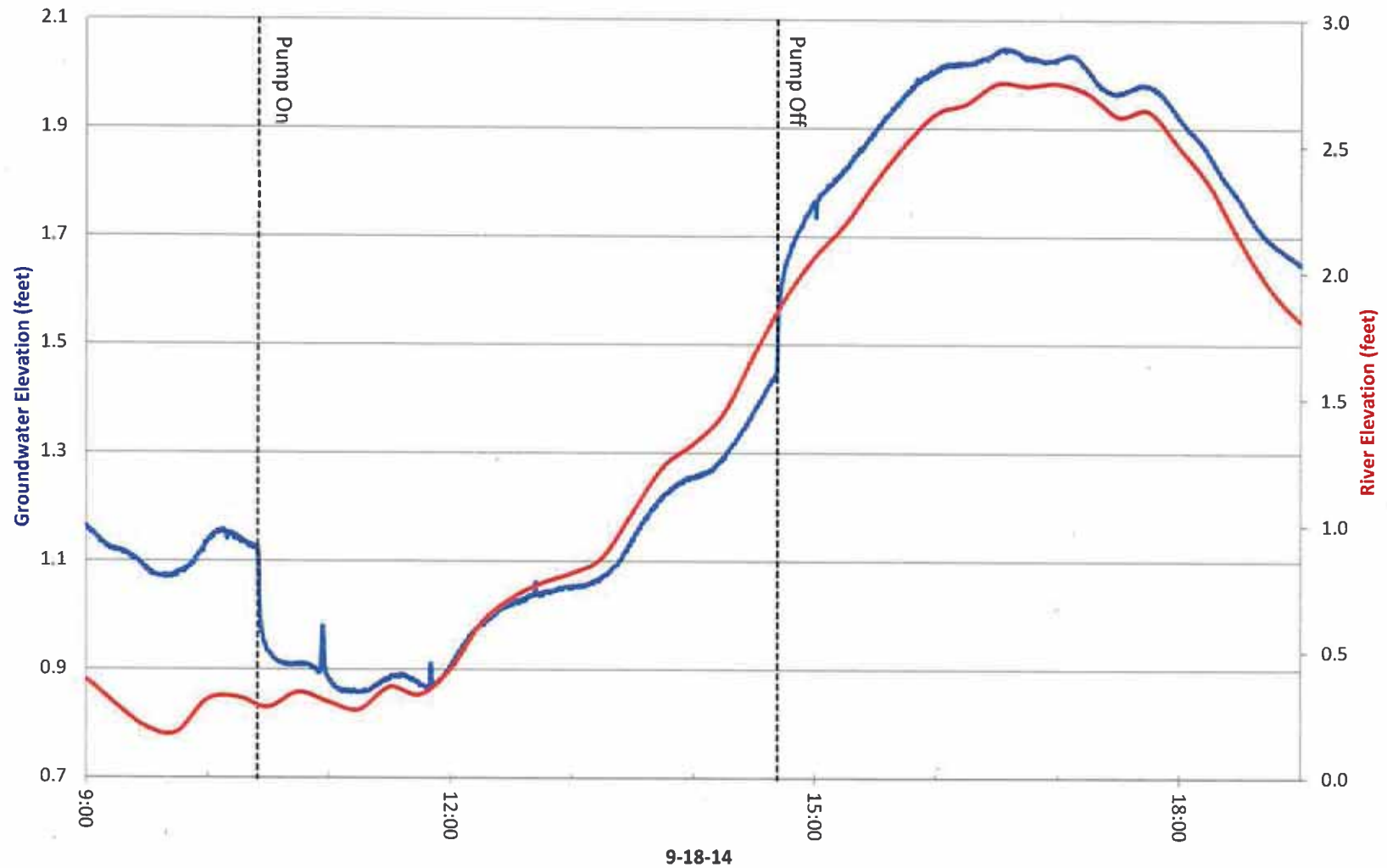


Figure J-55
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-18S

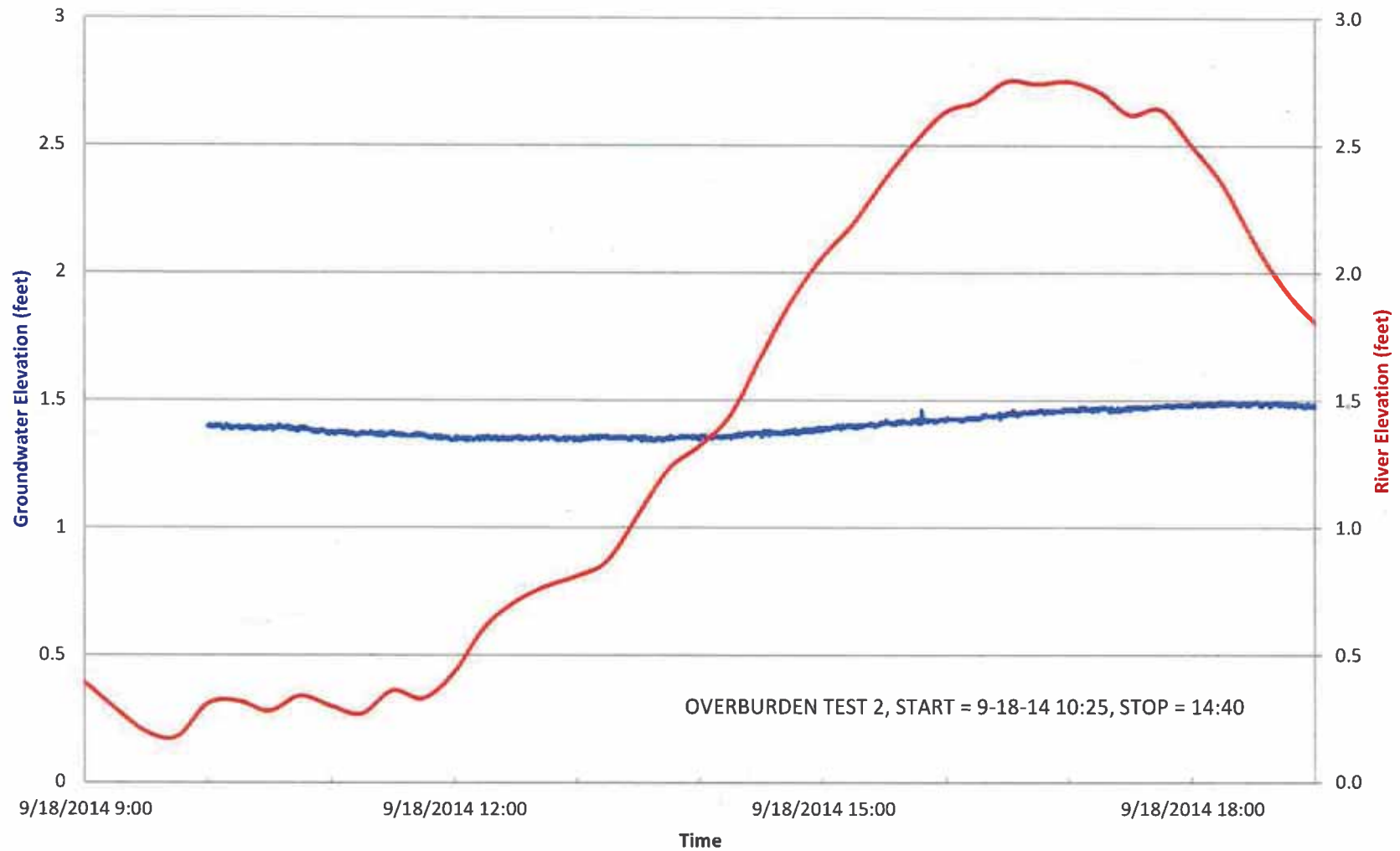


Figure J-56A
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-19D

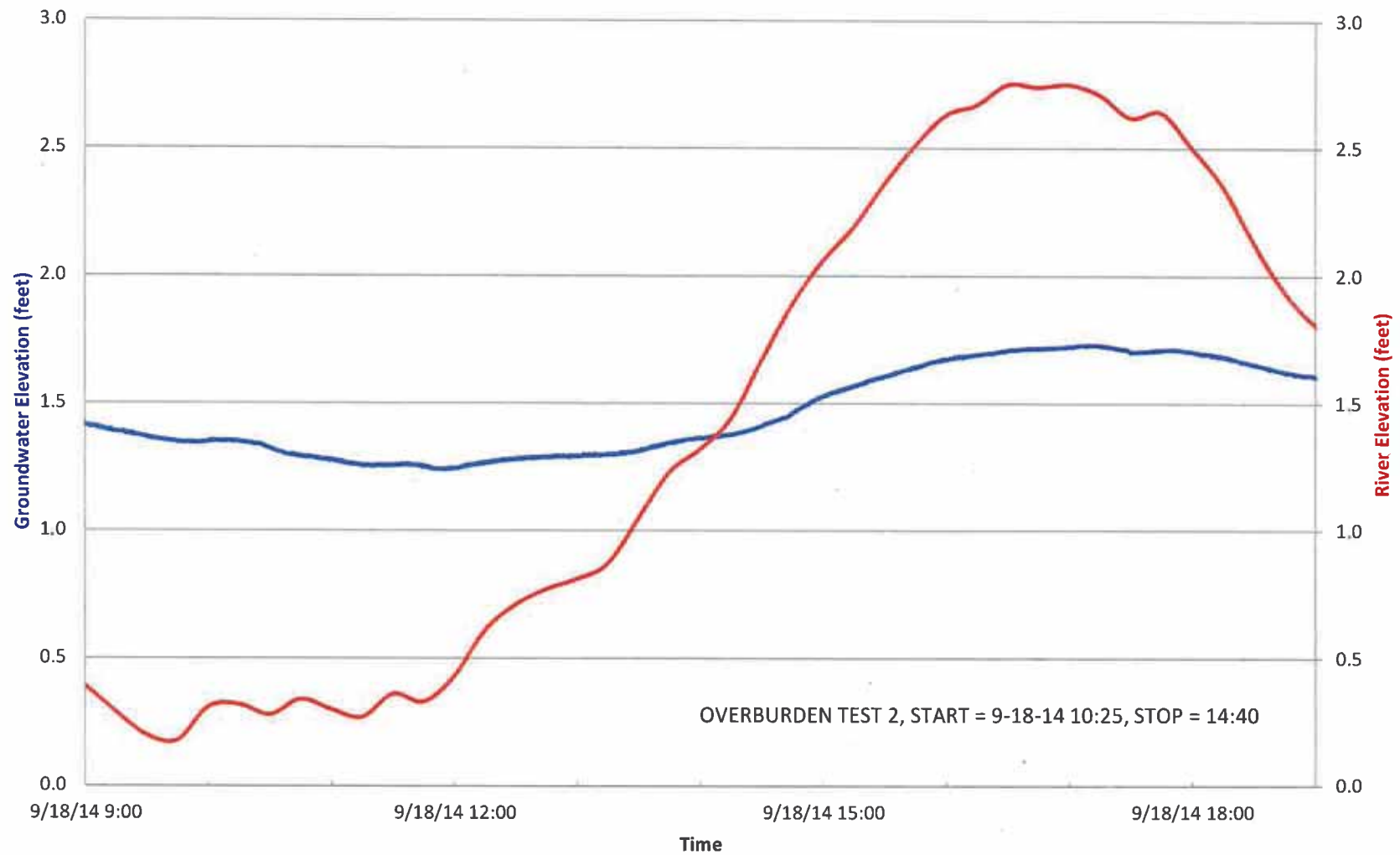


Figure J-56B
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-19D

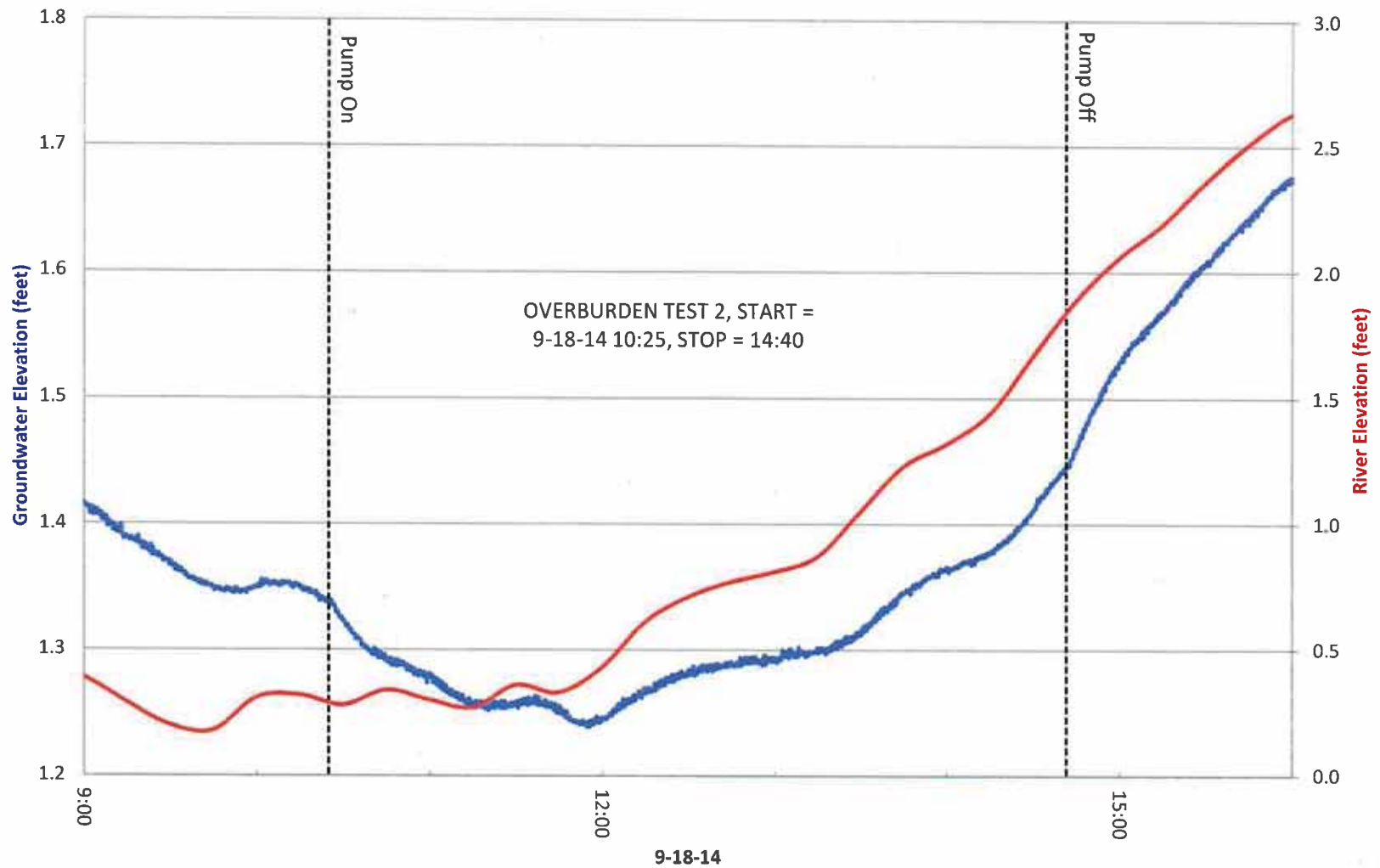


Figure J-57
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-22S

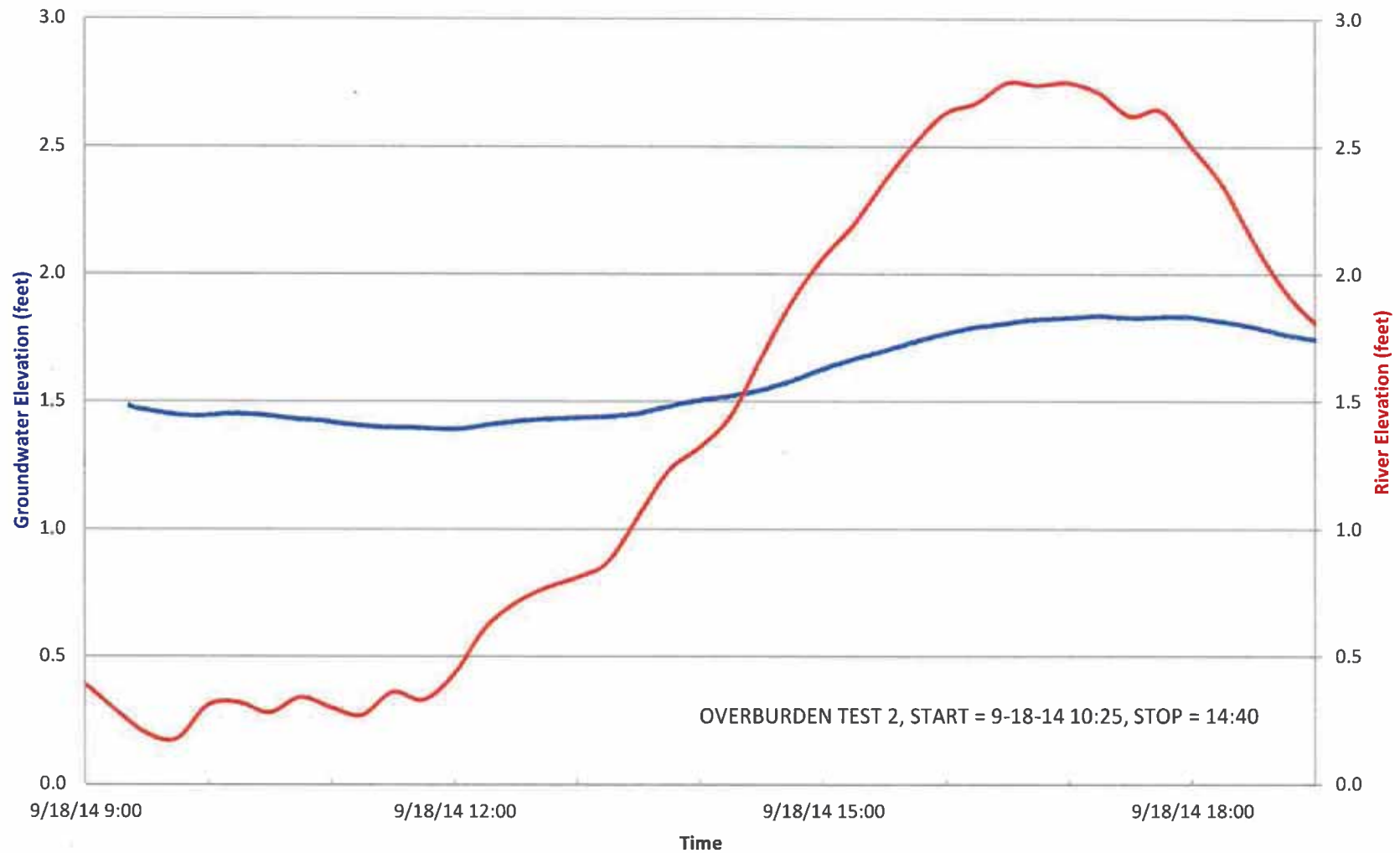


Figure J-58A
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-23B

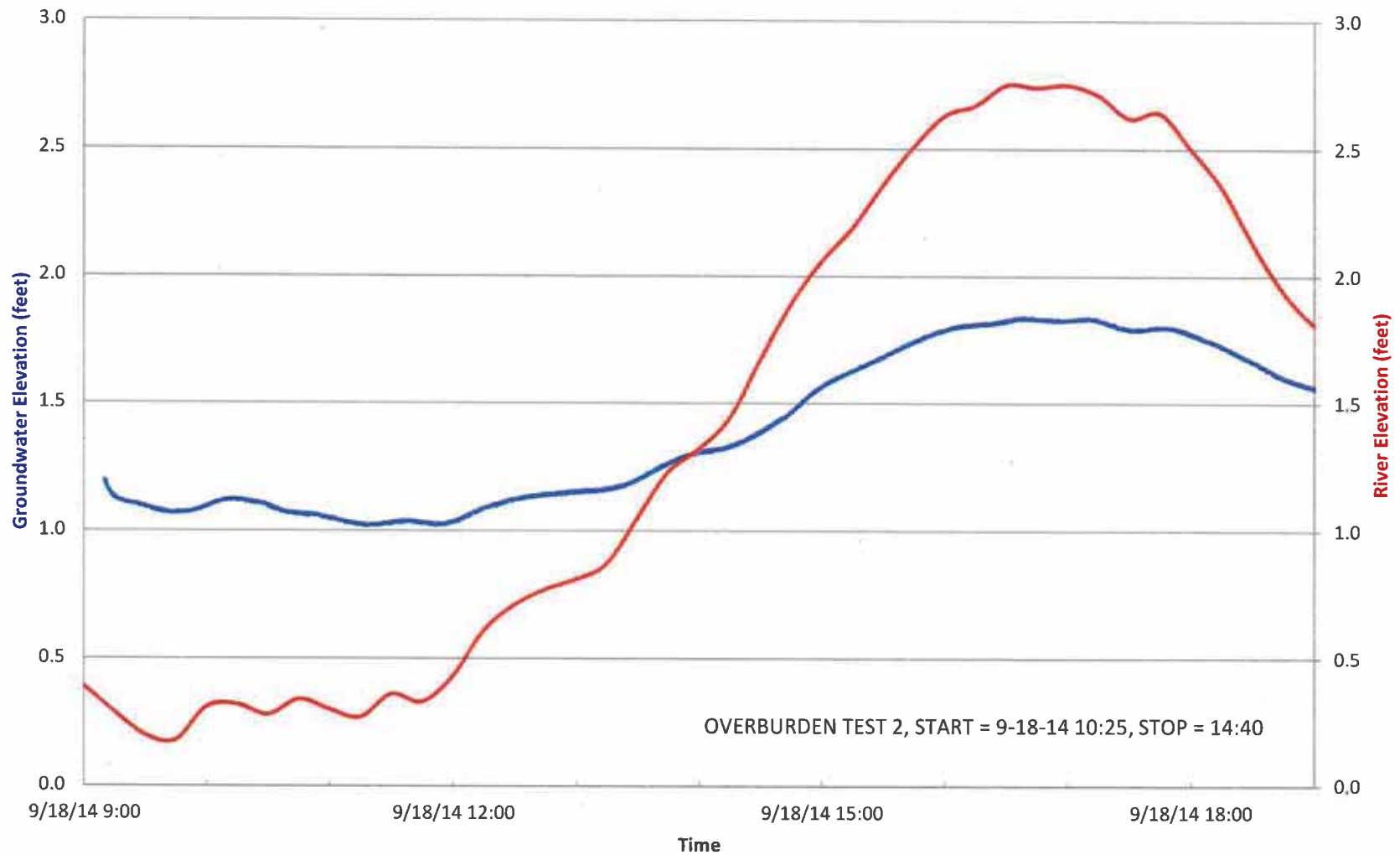


Figure J-58B
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-23B

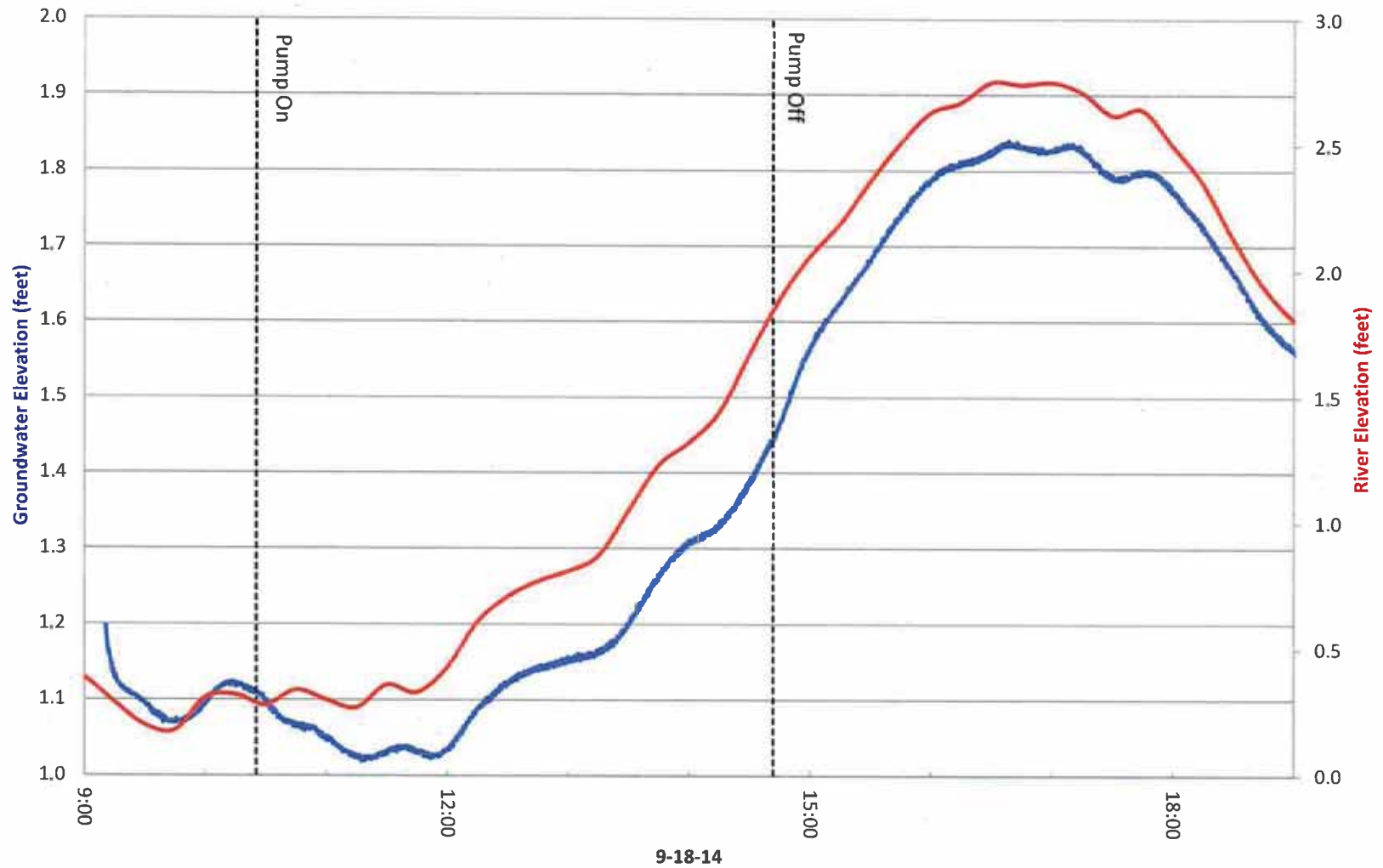


Figure J-59
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-23D

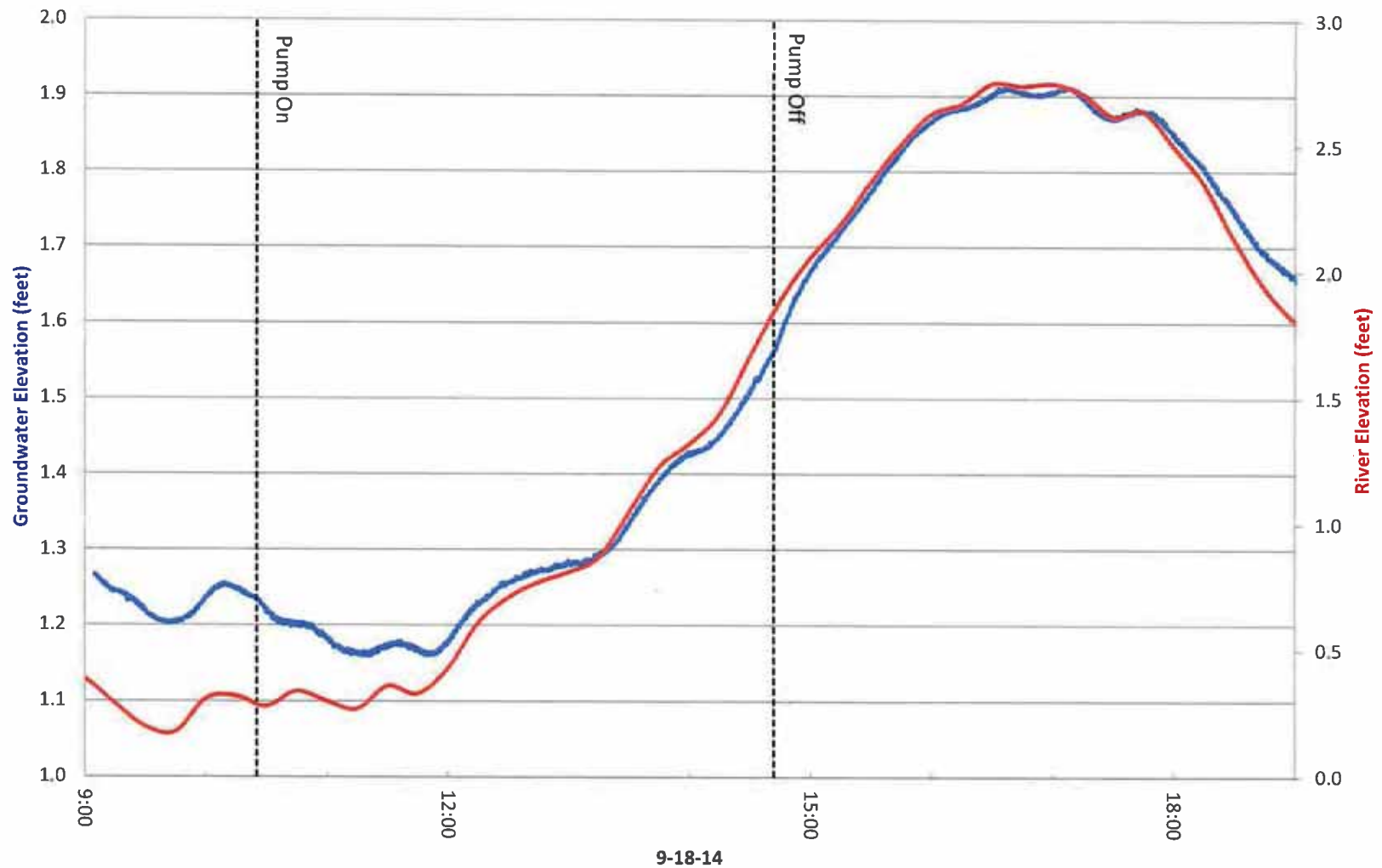


Figure J-60A
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-27B

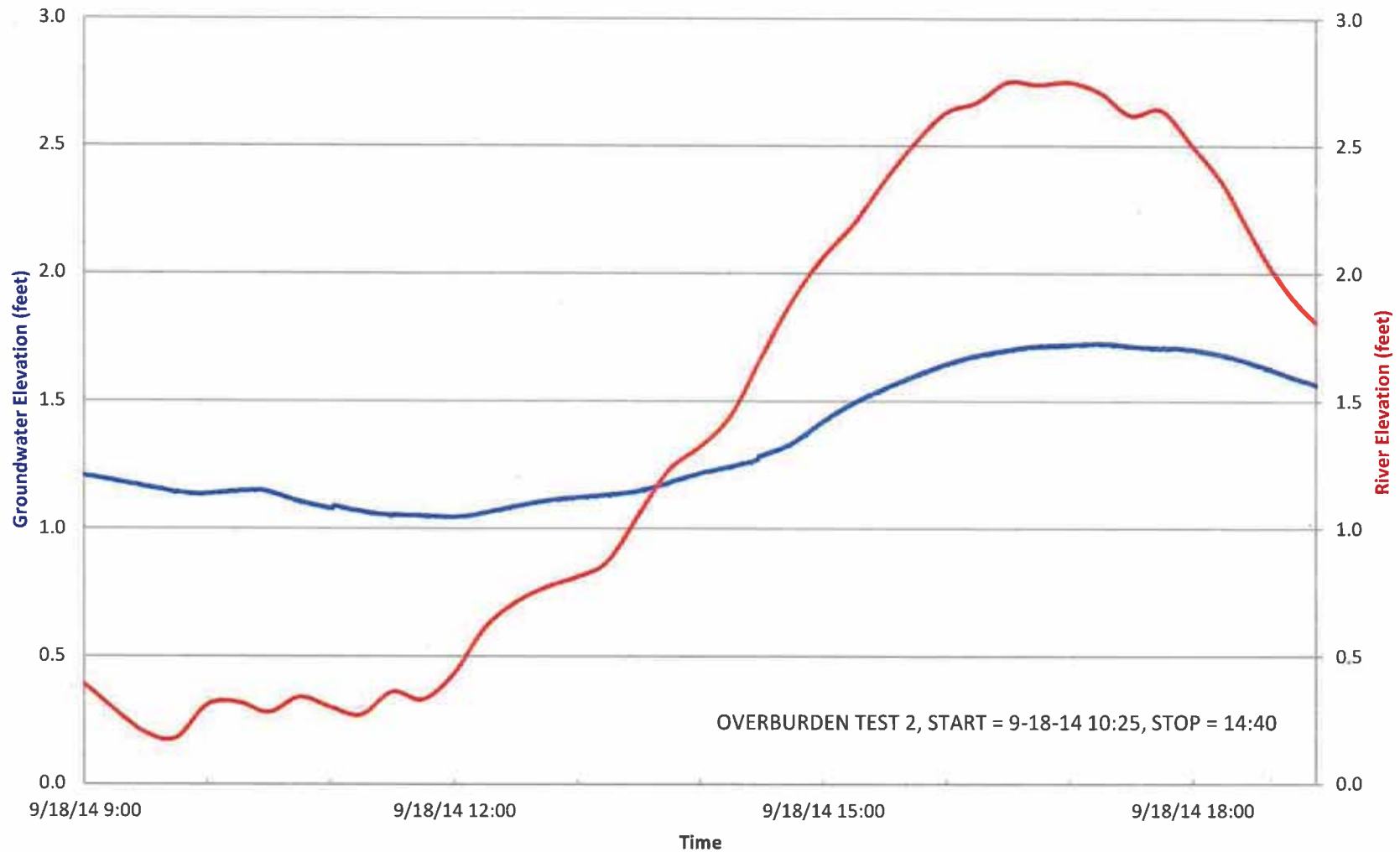


Figure J-60B
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in MW-27B

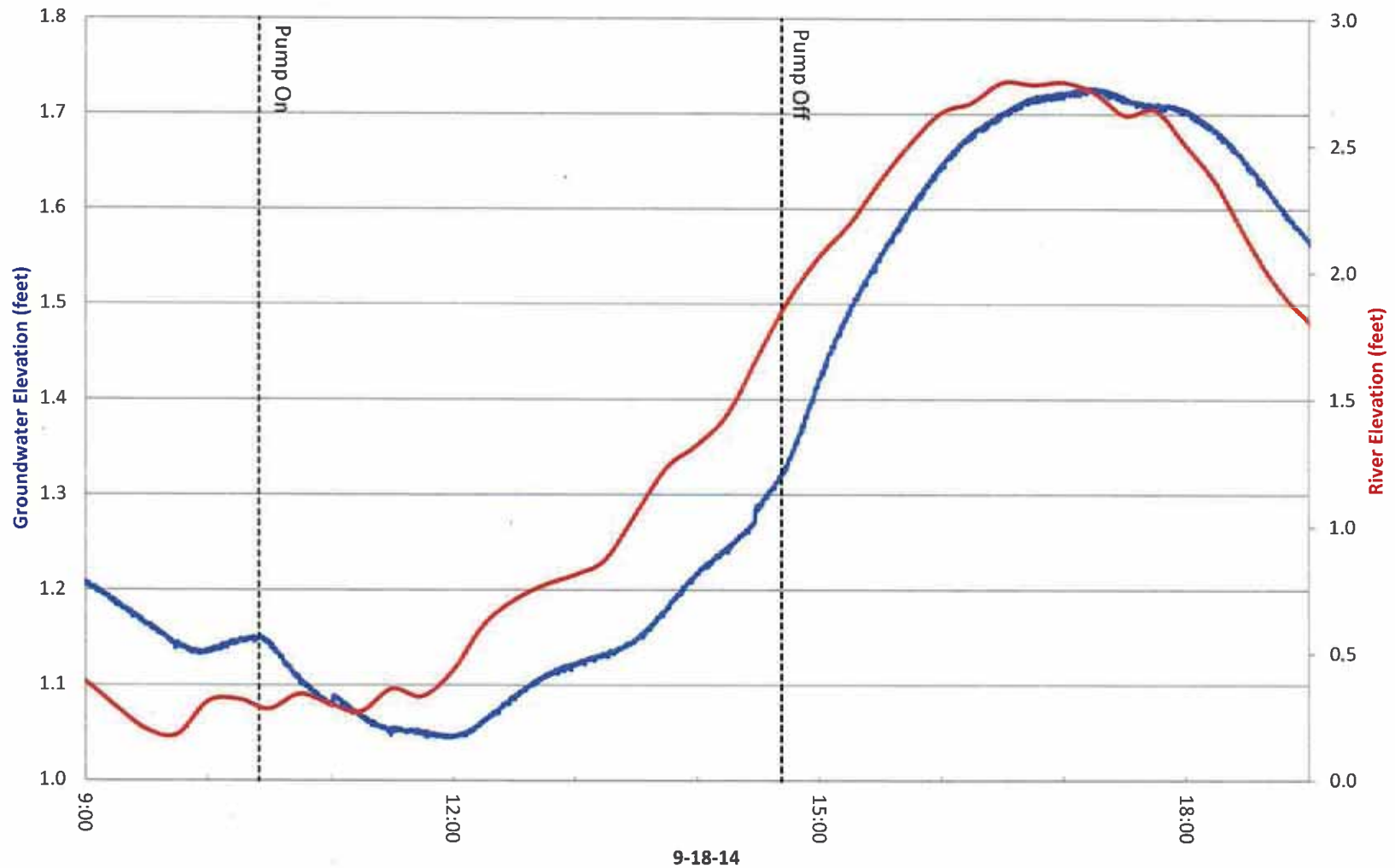
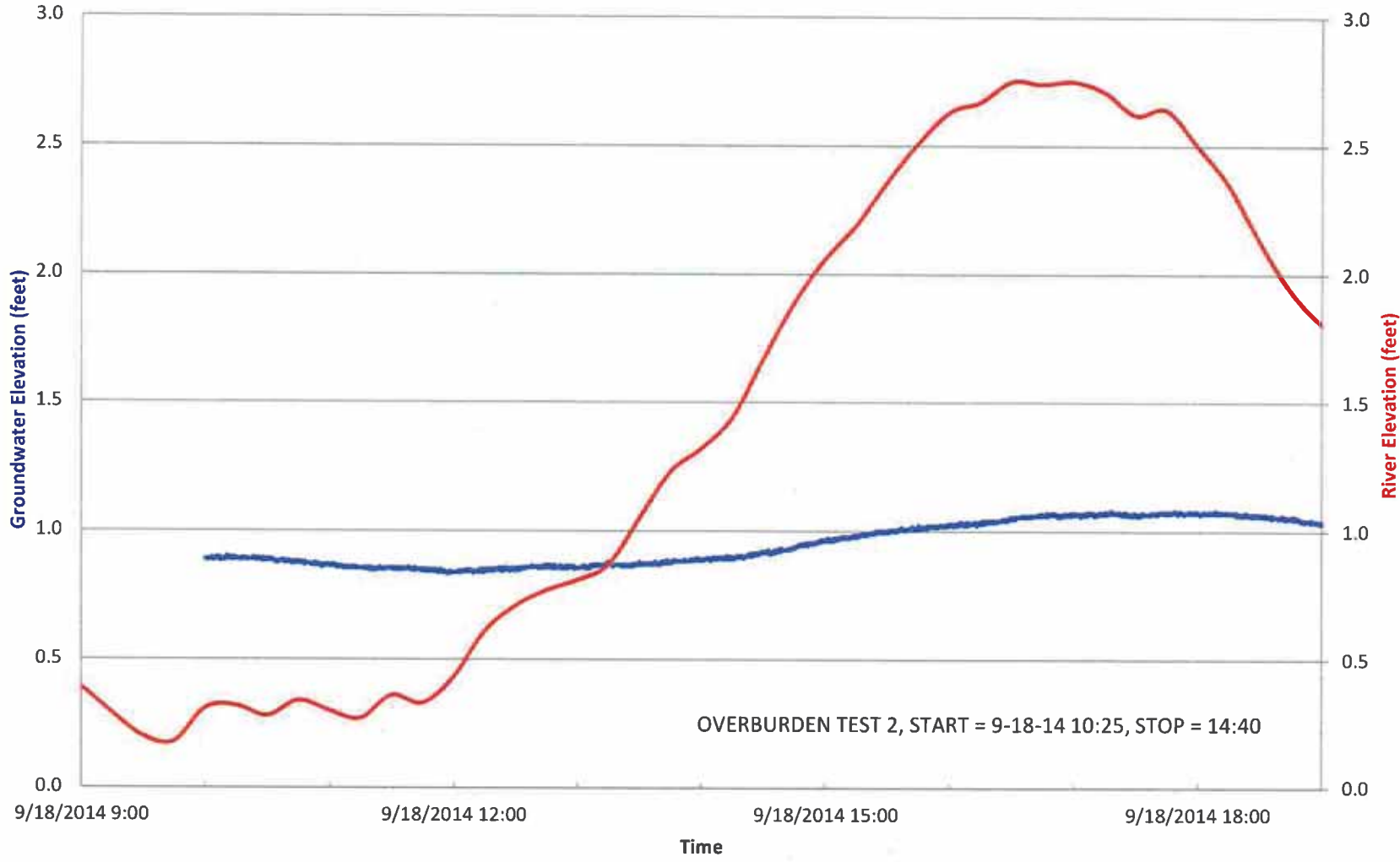


Figure J-61
MW-17D Pumping Test
Groundwater Elevation and River Elevation over Time in GZ-102D



APPENDIX K

Tidal Study Figures

Figure K-1
Surface Water Levels from the Acushnet River

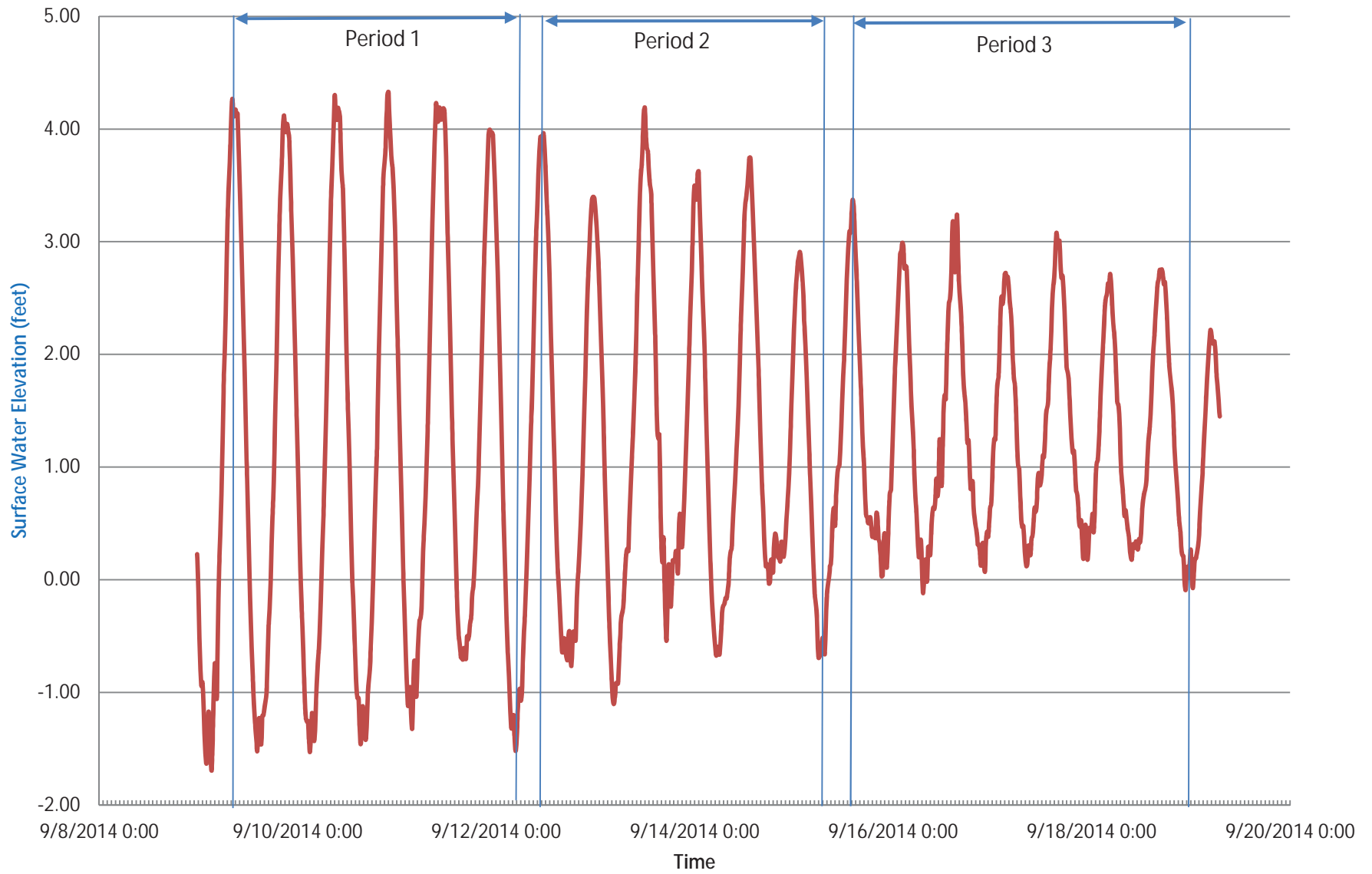


Figure K-2
Groundwater Elevation and River Elevation over Time
in Wells less than 180 feet from the River

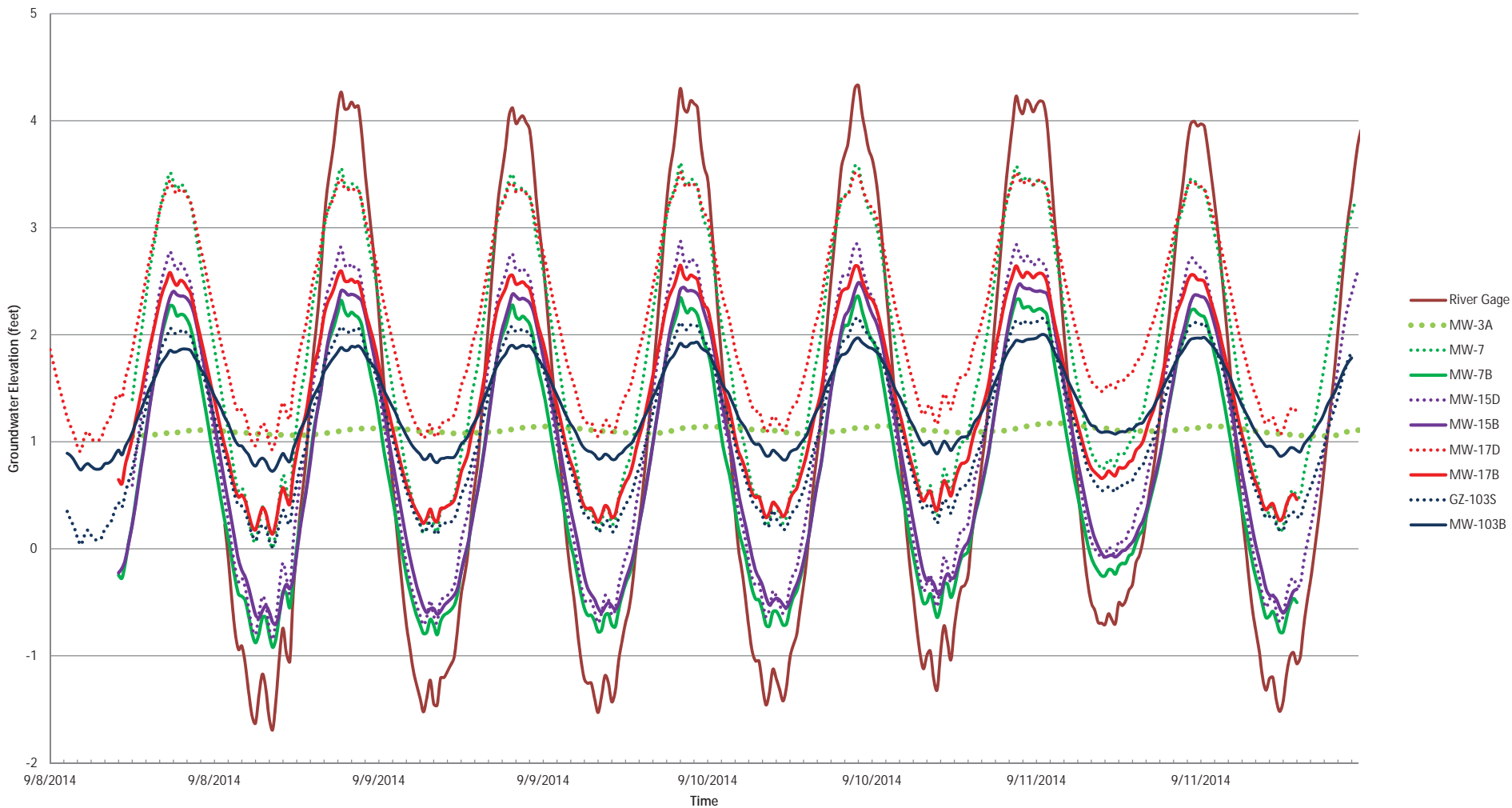


Figure K-3
Groundwater Elevation and River Elevation over Time
in Wells 180 to 360 feet from the River

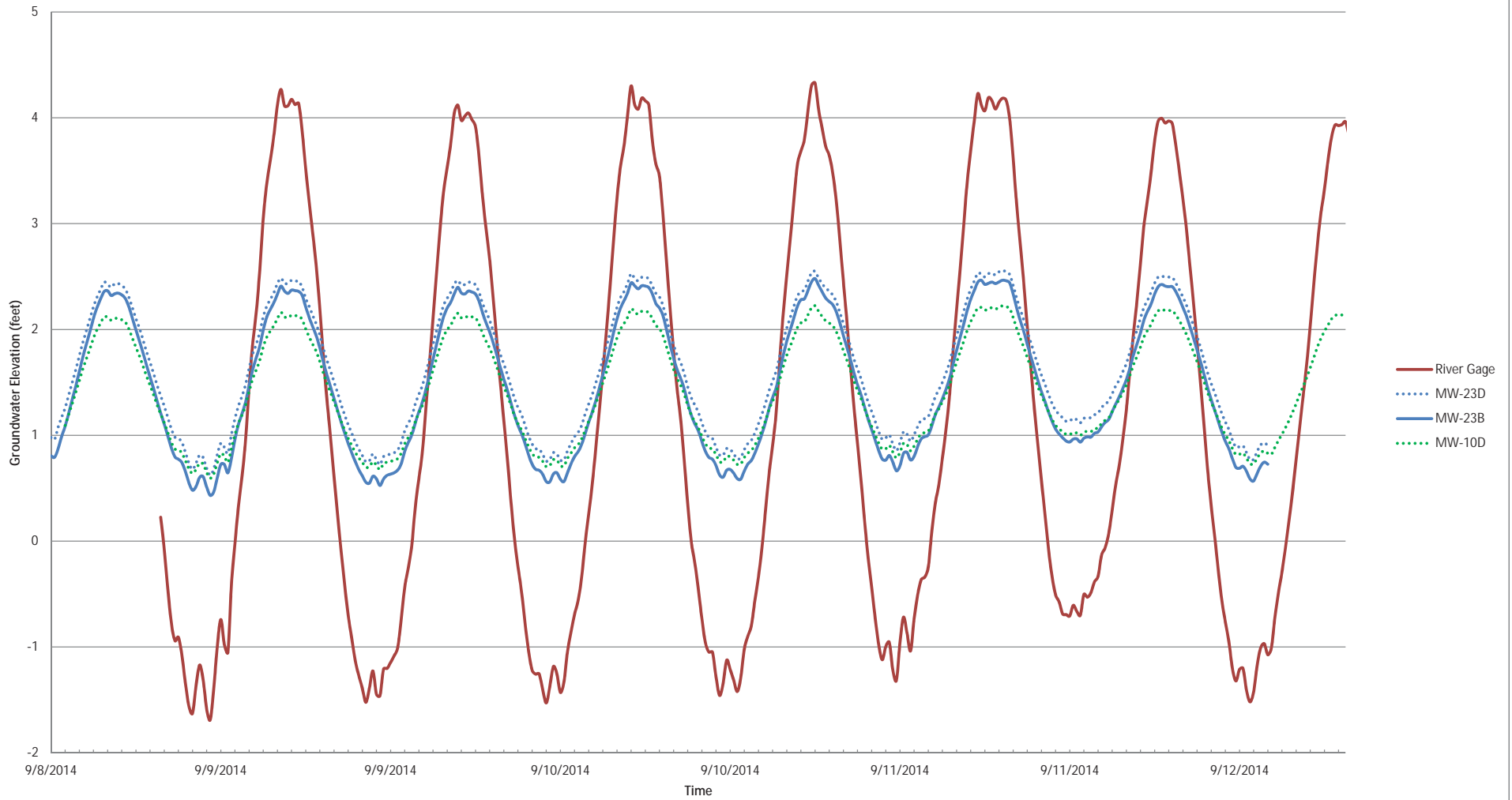


Figure K-4
Groundwater Elevation and River Elevation over Time
in Wells 360-720 feet from the River

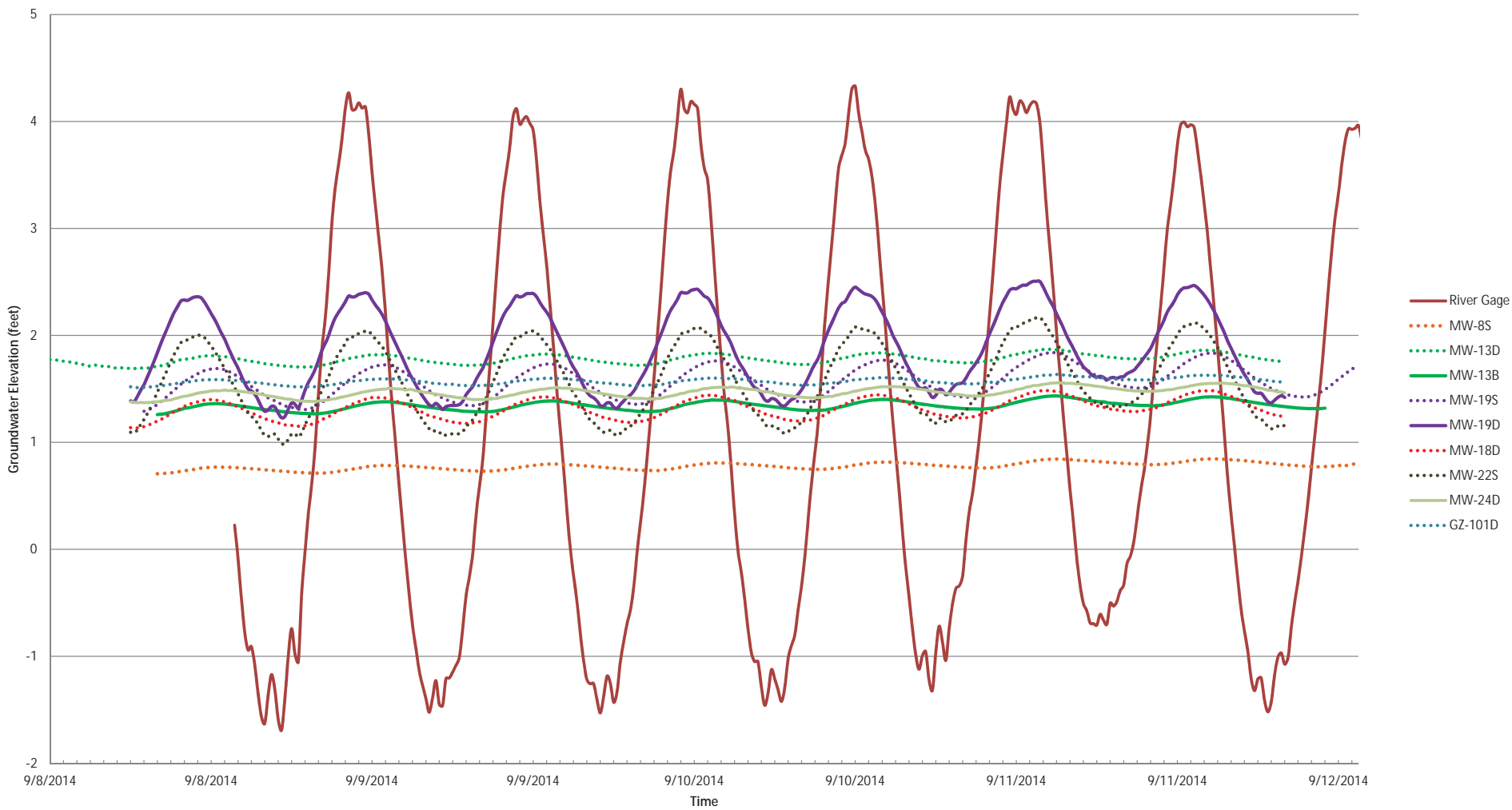


Figure K-5
Groundwater Elevation and River Elevation over Time
in Wells over 720 feet from the River

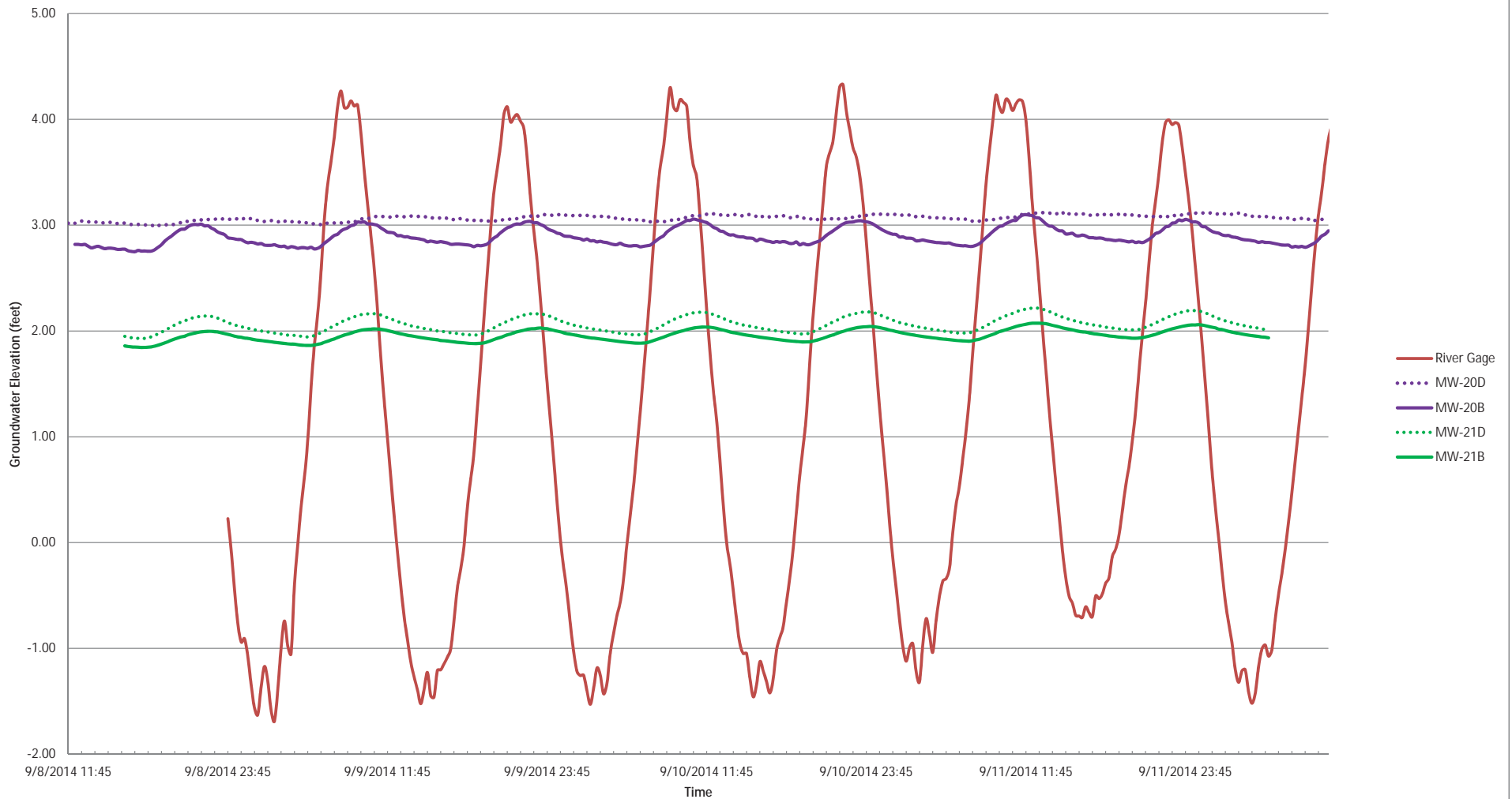
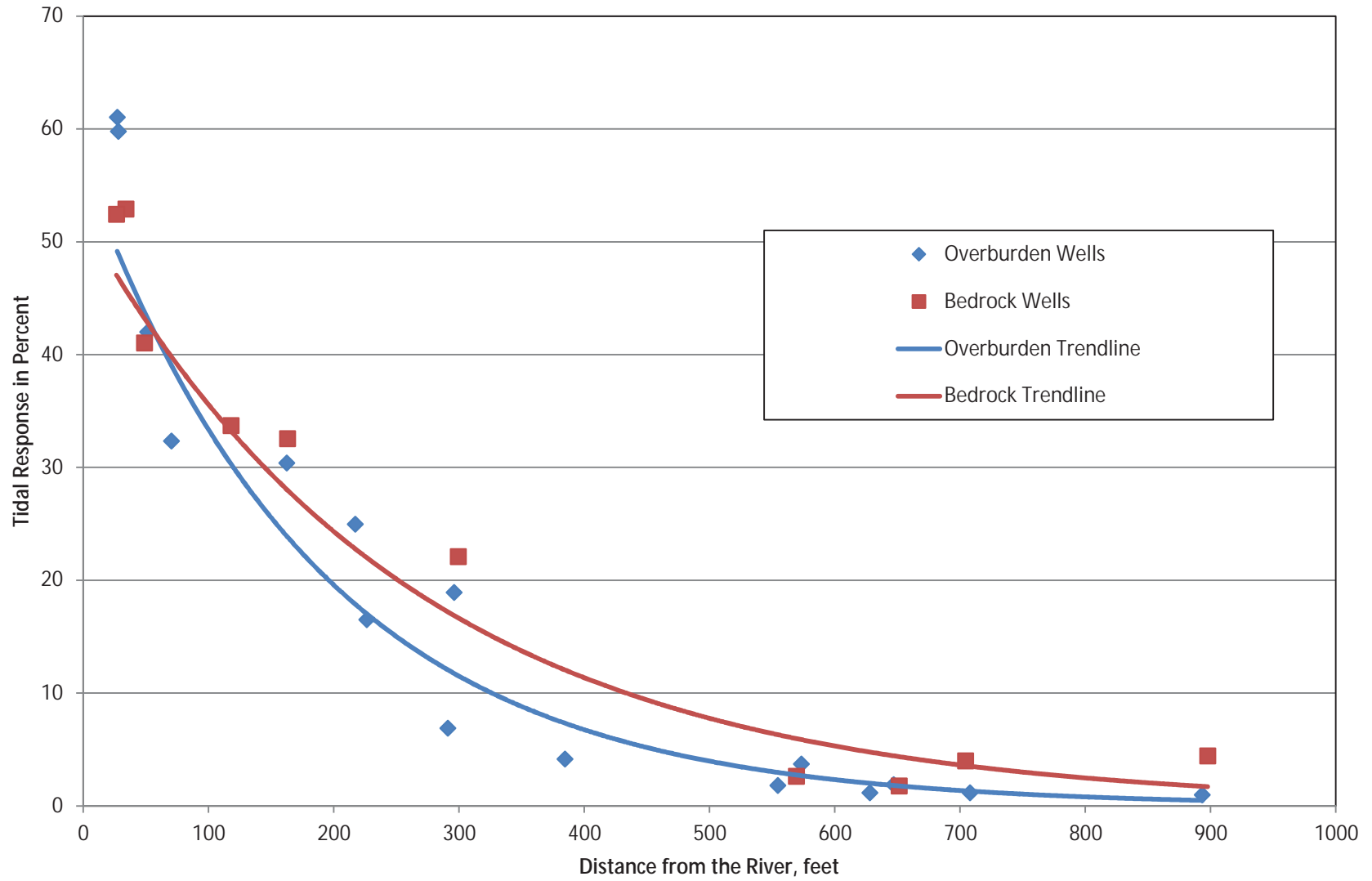


Figure K-6
Tidal Response in Observation Wells



APPENDIX L

Waste Manifests

Truck # 5181

RI 3500800701-001

90 PPW 12/1/2008

Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number MA0062319777	2. Page 1 of 1	3. Emergency Response Phone (800) 483 3718	4. Manifest Tracking Number 007078309 FLE			
5. Generator's Name and Mailing Address New Bedford City of 133 William Street Room 204 New Bedford, MA 02740 Generator's Phone: (508) 979-1803				Generator's Site Address (if different than mailing address) Aerovox Facility 21E/MOP 740 Belleville Avenue New Bedford, MA 02745				
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc				U.S. EPA ID Number MA003932250				
7. Transporter 2 Company Name				U.S. EPA ID Number				
8. Designated Facility Name and Site Address Spring Grove Resource Recovery Inc 4079 Spring Grove Avenue Cincinnati, OH 45232 Facility's Phone: (513) 681-9739				U.S. EPA ID Number OH0000816629				
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
1.	NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (TRICHLOROETHYLENE), G, PG III			001 DF		10	K	MA02 D040
2.								
3.								
4.								
14. Special Handling Instructions and Additional Information CONTAINER ENCL171 OSD: 3-9-2015								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offorer's Printed/Typed Name Way Albano				Signature [Signature]		Month 3	Day 1	Year 15
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____								
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Jim Decker #1215 Signature [Signature] #1215 Month 05 Day 09 Year 15 Transporter 2 Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____								
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: _____ U.S. EPA ID Number _____								
18b. Alternate Facility (or Generator) _____ U.S. EPA ID Number _____ Facility's Phone: _____								
18c. Signature of Alternate Facility (or Generator) _____ Month _____ Day _____ Year _____								
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. 2. 3. 4.								
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____								

TRL # 3129

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number M A D 0 6 2 3 1 9 7 7 7	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 007078575 FLE		
5. Generator's Name and Mailing Address New Bedford City of 133 Wilson Street Room 304 New Bedford, MA 02740				Generator's Site Address (if different than mailing address) Aerowin Facility 21E/WCT 740 Belleville Avenue New Bedford, MA 02745			
Generator's Phone: (508) 879-1603							
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc				U.S. EPA ID Number M A D 0 3 9 3 2 2 8 0			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address Clean Harbors of Cranston Inc 1 Hill Avenue Cranston, MA 02104				U.S. EPA ID Number M A D 0 5 3 4 5 2 6 3 7			
Facility's Phone: (781) 380-7100							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
1.	NON DOT REGULATED MATERIAL (WATER, SEDIMENT)	001	TT	5336	6	HA119	
2.							
3.							
4.							
14. Special Handling Instructions and Additional Information L CH782696B							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offerer's Printed/Typed Name Ray Holberger				Signature 		Month Day Year 3 11 15	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name Jacky Tomasso				Signature 		Month Day Year 3 17 15	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantly <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number: _____							
18b. Alternate Facility (or Generator)				U.S. EPA ID Number			
Facility's Phone: _____							
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1.	2.	3.	4.				
HA1							
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number MA0062819777	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3723	4. Manifest Tracking Number 007078564 FLE	
5. Generator's Name and Mailing Address New Bedford City of 113 William Street Room 304 New Bedford, MA 02740			Generator's Site Address (if different than mailing address) Approval Facility 21E/WCP 740 Bellefleur Avenue New Bedford, MA 02745			
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc			U.S. EPA ID Number MA0039322250			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address Clean Harbors of Braintree Inc 1 Hill Avenue Braintree, MA 02184			U.S. EPA ID Number MA0053492637			
Facility's Phone: (781) 540-7100						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
1.	NON DOT REGULATED MATERIAL, (WATER, SEDIMENT)	001	TT	5026	G	MA00
2.	NON DOT REGULATED MATERIAL, (WATER, SEDIMENT)					
3.						
4.						
14. Special Handling Instructions and Additional Information 1. CH7628803						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offeror's Printed/Typed Name Roy Bilbays			Signature <i>[Signature]</i>		Month Day Year 5 15 15	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name Jack T...			Signature <i>[Signature]</i>		Month Day Year 5 15 15	
Transporter 2 Printed/Typed Name			Signature		Month Day Year	
18. Discrepancy						
18a. Discrepancy Indication Spece <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number: _____						
18b. Alternate Facility (or Generator)					U.S. EPA ID Number	
Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)					Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1.	2.	3.	4.			
H141	H141					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name			Signature		Month Day Year	

TR-317

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number MA0062319777	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 007078574 FLE			
5. Generator's Name and Mailing Address New Bedford City 133 William Street Room 304 New Bedford, MA 02740 Generator's Phone: 5081979-1603				Generator's Site Address (if different than mailing address) Aerovox Facility 21E/MCP 740 Belleville Avenue New Bedford, MA 02745				
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc				U.S. EPA ID Number MA0035322250				
7. Transporter 2 Company Name				U.S. EPA ID Number				
8. Designated Facility Name and Site Address Clean Harbors of Braintree Inc 1 Hill Avenue Braintree, MA 02104 Facility's Phone: 781380-7100				U.S. EPA ID Number MA0053452637				
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
1.	NON DOT REGULATED MATERIAL (WATER, SEDIMENT)			101 TT		5143	0.	MA00
2.								
3.								
4.								
14. Special Handling Instructions and Additional Information 1. CHT606008								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offorer's Printed/Typed Name K. H. Hoberg				Signature <i>[Signature]</i>			Month Day Year 5 2 15	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:								
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name: Leahy, Tomasso Signature: <i>[Signature]</i> Month Day Year: 5 20 15 Transporter 2 Printed/Typed Name: Signature: Month Day Year:								
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number:								
18b. Alternate Facility (or Generator) Facility's Phone:				U.S. EPA ID Number				
18c. Signature of Alternate Facility (or Generator)				Month Day Year				
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. 2. 3. 4.								
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name Signature Month Day Year								

GENERATOR

TRANSPORTER INTL

DESIGNATED FACILITY

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

TRF# 3129

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number WAD068319777	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 007078573	FLE
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5. Generator's Name and Mailing Address New Bedford City of 133 William Street Room 304 New Bedford, MA 02740 Generator's Phone: (508) 979-1803	Generator's Site Address (if different than mailing address) Aerovex Facility 21E/MCP 740 Belleville Avenue New Bedford, MA 02745
---	---

6. Transporter 1 Company Name Clean Harbors Environmental Services Inc	U.S. EPA ID Number WAD039322250
---	------------------------------------

7. Transporter 2 Company Name	U.S. EPA ID Number
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8. Designated Facility Name and Site Address Clean Harbors of Braintree Inc 1 Hill Avenue Braintree, MA 02184 Facility's Phone: (781) 380-7100	U.S. EPA ID Number MA0053452637
--	------------------------------------

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes	
		No.	Type				
1.	NON DOT REGULATED MATERIAL, (WATER, SEDIMENT)	001	TT	2321	G	MASS	
2.							
3.							
4.							

14. Special Handling Instructions and Additional Information H. 50760000

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offero's Printed/Typed Name May 11/2015	Signature [Signature]	Month Day Year 5/2/15
--	--------------------------	--------------------------

16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/exit: 1	Date leaving U.S.:
--	-----------------------	--------------------

17. Transporter Acknowledgment of Receipt of Materials	Transporter 1 Printed/Typed Name Jody Tomasse	Signature [Signature]	Month Day Year 5/2/15
	Transporter 2 Printed/Typed Name	Signature	Month Day Year

18. Discrepancy	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection	Manifest Reference Number:
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18b. Alternate Facility (or Generator)	U.S. EPA ID Number
Facility's Phone:	
18c. Signature of Alternate Facility (or Generator)	Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)			
1. 0141	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a	Printed/Typed Name	Signature	Month Day Year
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#15181

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number WHD0002310777	2. Page 1 of 1	3. Emergency Response Phone (800) 425-3710	4. Manifest Tracking Number 007078584 FLE			
5. Generator's Name and Mailing Address 133 William Street Room 305 New Bedford, MA 02740 (508) 975-1003				Generator's Site Address (if different than mailing address) Aerovox Facility 21E/MCP 740 Belleville Avenue New Bedford, MA 02745				
6. Transporter 1 Company Name Clean Harbor Environmental Services Inc				U.S. EPA ID Number MAD039322250				
7. Transporter 2 Company Name				U.S. EPA ID Number				
8. Designated Facility Name and Site Address Spring Grove Resource Recovery Inc 4879 Spring Grove Avenue Cincinnati, OH 45232 Facility's Phone: (513) 681-8738				U.S. EPA ID Number OH0000816629				
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		No.	Type					
1.	HA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (TRICHLOROETHYLENE), S, PG III	101	DR	100	P	MAC2	D040	
2.								
3.								
4.								
14. Special Handling Instructions and Additional Information 1. CH075166 ERG#171 1x 55 UNIFORM ID 7001-001 OUT OF SERVICE - 5/26/15								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offeror's Printed/Typed Name Ray Halbeger, C.T. Services				Signature 		Month 5	Day 26	Year 2015
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:								
17. Transporter Acknowledgment of Receipt of Materials								
Transporter 1 Printed/Typed Name Clean Harbor				Signature 		Month 05	Day 26	Year 15
Transporter 2 Printed/Typed Name				Signature		Month	Day	Year
18. Discrepancy								
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
Manifest Reference Number:								
18b. Alternate Facility (or Generator)						U.S. EPA ID Number		
Facility's Phone:								
18c. Signature of Alternate Facility (or Generator)						Month	Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1.	2.	3.	4.					
1.	W111							
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name				Signature		Month	Day	Year

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number MA0062319777	2. Page 1 of 3	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 007078583 FLE
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5. Generator's Name and Mailing Address New Bedford City of 133 William Street Room 304 New Bedford, MA 02740 Generator's Phone: (508) 979-1603	Generator's Site Address (if different than mailing address) Aerovox Facility 21E/MCP 740 Belleville Avenue New Bedford, MA 02745
---	---

6. Transporter 1 Company Name Clean Harbors Environmental Services Inc	U.S. EPA ID Number MA0039322250
---	------------------------------------

7. Transporter 2 Company Name	U.S. EPA ID Number
-------------------------------	--------------------

8. Designated Facility Name and Site Address Clean Harbors of Braintree Inc 1 Hill Avenue Braintree, MA 02184 Facility's Phone: (781) 380-7100	U.S. EPA ID Number MA0063452637
--	------------------------------------

GENERATOR

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
1.	NON DOT REGULATED MATERIAL (SOL)	137	DM	58X1K		MAC2	
2.							
3.							
4.							

14. Special Handling Instructions and Additional Information J. CH767671 37 X 55 See attached TSCA Form
--

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generators/Offeror's Printed/Typed Name Ray Holboga Jr	Signature 	Month 5	Day 26	Year 2015
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INT'L

16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/exit:
Transporter signature (for exports only):	Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials				
Transporter 1 Printed/Typed Name Gordon L...	Signature 	Month 05	Day 26	Year 15
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED-FACILITY

18. Discrepancy
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)	U.S. EPA ID Number
Facility's Phone:	

18c. Signature of Alternate Facility (or Generator)	Month	Day	Year
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19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)			
1. 11.41	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a				
Printed/Typed Name	Signature	Month	Day	Year

TK# 4013

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number MAD062319777	2. Page 1 of 1	3. Emergency Response Phone (603) 483-3710	4. Manifest Tracking Number 007078601 FLE	
5. Generator's Name and Mailing Address New Bedford City of 133 William Street Room 304 New Bedford, MA 02740			Generator's Site Address (if different than mailing address) Aerovox Facility 21E/MCP 740 Belleville Avenue New Bedford, MA 02745			
6. Transporter 1 Company Name Clean Harbors Environmental Services Inc			U.S. EPA ID Number MAD03932250			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address Clean Harbors of Braintree Inc 1 Mill Avenue Braintree, MA 02184			U.S. EPA ID Number MAD053452637			
Facility's Phone: (781) 900-7100						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
1.	NON DOT REGULATED MATERIAL (WATER, SEDIMENT)	001	TT	2836	G	MAE5
2.						
3.						
4.						
14. Special Handling Instructions and Additional Information 1. CER 7636945						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offorer's Printed/Typed Name Ray Hilbinger of New Bedford					Signature <i>[Signature]</i>	
					Month Day Year 05 28 15	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name Adriano Brito					Signature <i>[Signature]</i>	
					Month Day Year 05 28 15	
Transporter 2 Printed/Typed Name					Signature	
					Month Day Year	
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number:						
18b. Alternate Facility (or Generator)					U.S. EPA ID Number	
Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)					Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1.	2.	3.	4.			
H141						
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name					Signature	
					Month Day Year	

Track # 4121

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number MAD069319777	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3714	4. Manifest Tracking Number 007078611	FLE
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5. Generator's Name and Mailing Address New Bedford City of 133 William Street Room 304 New Bedford, MA 02740 Generator's Phone: (508) 979-1603	Generator's Site Address (if different than mailing address) Aerovox Facility 21E/MCP 740 Belleville Avenue New Bedford, MA 02745
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6. Transporter 1 Company Name Clean Harbors Environmental Services Inc	U.S. EPA ID Number MAD099322260
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7. Transporter 2 Company Name	U.S. EPA ID Number
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8. Designated Facility Name and Site Address Clean Harbors of Braintree Inc 1 Hill Avenue Braintree, MA 02104 Facility's Phone: (781) 980-7100	U.S. EPA ID Number MAD099492037
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9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
1.	NON HOT REGULATED MATERIAL (WATER, SEDIMENT)	001	TT	2800	G	MAD0	
2.							
3.							
4.							

14. Special Handling Instructions and Additional Information L CH7626265

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Officer's Printed/Typed Name [Signature]	Signature [Signature]	Month Day Year 06 03 15
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16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/exit: Date leaving U.S.:
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17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Jim DeWolfe #1215 Signature [Signature]	Month Day Year 06 03 15
Transporter 2 Printed/Typed Name	Month Day Year

18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection

18b. Alternate Facility (or Generator) Facility's Phone:	Manifest Reference Number: U.S. EPA ID Number
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18c. Signature of Alternate Facility (or Generator)	Month Day Year
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19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 11111 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name Signature	Month Day Year
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