Proactive by Design

MONITORING REPORT
2014-2017

642 Allens Avenue
Providence, Rhode Island

January 7, 2021
GZA File No.: 03.0033554.01
RIDEM Case No. 98-004 / File No. SR-28-1152

PREPARED FOR:
Rhode Island Department of Environmental Management (RIDEM)
Providence, Rhode Island

ON BEHALF OF:
nationalgrid

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January 7, 2021
File No. 03.0033554.01

Via E-Mail and U.S. Mail

Mr. Joseph Martella
Rhode Island Department of Environmental Management (RIDEM)
Office of Land Revitalization and Sustainable Materials Management
235 Promenade Street
Providence, Rhode Island 02908

Re: 2014-2017 Monitoring Report
642 Allens Avenue
Providence, Rhode Island
RIDEM Case No. 98-004 / Site Remediation File No. SR-28-1152

Dear Mr. Martella:

On behalf of the Narragansett Electric Company d/b/a National Grid (National Grid), GZA GeoEnvironmental, Inc. (GZA) is pleased to present to the Rhode Island Department of Environmental Management (RIDEM) the attached *2014-2017 Monitoring Report* for the Former 642 Allens Avenue Manufactured Gas Plant (MGP) located at 642 Allens Avenue in Providence, Rhode Island (the Site). This report describes Site monitoring activities that were performed at the above referenced Site during 2014, 2015, 2016 and 2017. As described in the attached report, these Site monitoring activities include routine shoreline observations, groundwater elevation and non-aqueous phase liquid gauging, and groundwater quality monitoring.

Should you have any questions or comments regarding the information presented herein, please do not hesitate to contact the undersigned at (401) 421-4140 or Ms. Amy Willoughby of National Grid at (781) 907-3644.

Very truly yours,
GZA GEOENVIRONMENTAL, INC.

Sophia Narkiewicz, P.E.
Project Manager

James J. Clark, P.E.
Senior Principal

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Associate Principal

Attachment: 2014-2017 *Monitoring Report*

cc: Amy Willoughby, National Grid

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

On behalf of The Narragansett Electric Company (TNEC), d/b/a National Grid (National Grid), GZA GeoEnvironmental Inc. (GZA) has prepared this *Monitoring Report* describing activities performed at the Former 642 Allens Avenue Manufactured Gas Plant (MGP) located at 642 Allens Avenue in Providence, Rhode Island. The Site is also defined as Providence Tax Assessors Plat (A.P.) 101 Lot 1 and A.P. 56 Lot 5, 273, 316 and 317. These properties are collectively referred to herein as the "Site." This report describes monitoring activities that were performed at the Site during 2014, 2015, 2016 and 2017[1]. As described further herein, annual monitoring performed between 2014 and 2017 consisted of routine shoreline observations performed approximately monthly, semi-annual groundwater elevation/non-aqueous phase liquid (NAPL) gauging events, and annual groundwater quality sampling events. **Figure C1** -*Title Sheet and Index to Drawings* presents the Site Locus Plan and **Figure 2** - *Overall Aerial* presents the location of the Site. **Figure N1** - *General Notes and Legend* was prepared to provide the legend and notes for the Site plans.

This report is subject to the Limitations presented in **Appendix A** – *Limitations***.**

1.1 SITE DESCRIPTION

The Site was the location of the Former 642 Allens Avenue MGP. The Site is now largely occupied with natural gas utility operations, which serve the City of Providence and the State of Rhode Island. The Site is located on the east side of Allens Avenue, northeast of the intersection of Allens Avenue and Terminal Road in the City of Providence, Rhode Island (refer to **Figure C1**). The majority of the Site is secured with a locked perimeter chain-link fence. The configuration of this perimeter fencing is shown on **Figure 3A** (*Exploration Location Plan – CNG Facility and Natural Gas Regulation Facility*) and **Figure 3B** (*Exploration Location Plan – LNG Facility and Holcim Cement Facility)*.

The approximately 41-acre Site is identified in the City of Providence Tax Assessor's Office as Assessors Plat (A.P.) 56, Lots 5, 273, 316, and 317, and as A.P. 101, Lot 1. The entirety of the Site is currently owned by TNEC d/b/a National Grid (National Grid). National Grid LNG, Inc. (NGLNG) holds a lease on A.P. 56 Lot 316 and Holcim US, Inc. (Holcim) holds a lease on A.P. 56 Lot 273. The entirety of the Site is zoned by the City of Providence as W-3 (Port/Maritime Industrial Waterfront District). The W-3 Port/Maritime Industrial Waterfront District is intended "to promote maritime industrial and commercial uses within the areas of Providence's waterfront, protect the waterfront as a resource for water-dependent industrial uses, and facilitate the renewed use of a vital waterfront". The current Site layout and key features are shown on **Figure 3A** and **Figure 3B**.

For the purpose of this report, the Site has been subdivided into four areas based on current use. **Figure 3A** and **Figure 3B** presents the location and configuration of the following areas:

- Compressed Natural Gas (CNG) Facility (portion of A.P. 101 Lot 1);
- Natural Gas Regulation Facility (portion of A.P. 101 Lot 1 and A.P. 56 Lot 5);
- Liquefied Natural Gas (LNG) Facility (A.P. 56 Lot 316); and
- Holcim Cement Facility (A.P. 56 Lots 273 and 317).

[1] The most recent previous groundwater monitoring report was submitted to Rhode Island Department of Environmental Management (RIDEM) in September of 2014, which documented groundwater monitoring activities conducted during 2013.

The following table summarizes the five parcels that make up these four Site areas. Parcel locations are also shown on **Figure 2**.

A.P.	Lot	Lot Size (Acres)	Current Owner	Address	Current Use(s)
101	1	11.35	TNEC	642 Allens Avenue 670 Allens Avenue	Natural Gas Construction Storage Natural Gas Regulation and Distribution CNG Fueling Station
56	5	8.90	TNEC	642 Allens Avenue	Natural Gas Construction Storage Natural Gas Regulation and Distribution
56	273	3.90	TNEC	139 Terminal Road	Cement Storage and Distribution
56	316	16.36	TNEC	121 Terminal Road	LNG Facility
56	317	0.49	TNEC	121 Terminal Road	Access Road

The Site has frontage on Allens Avenue to the west and is bounded to the east by the Providence River. It is adjoined to the northwest by Triton Terminaling, LLC, and to the south by Terminal Road, the Former Sun Oil/Providence Port facility, and New England Bituminous Terminal Corporation. **Figure 2** presents the location of the Site and these abutting lots. The area bounding the Site is industrial in nature, with parcels zoned W-3 or M-2 (both industrial type zoning). The nearest residential lot is located over 1,000 feet to the south of the Site.

Based on review of information presented in the Environmental Resource map maintained by RIDEM (http://www.dem.ri.gov/maps/), groundwater in the area of the Site is classified as "GB," which indicates that groundwater may not be suitable for public or private drinking water use without treatment due to known or presumed degradation.

1.2 SITE BACKGROUND

Former Site operations have included the former MGP, former liquid petroleum gas (LPG) / propane gas storage and distribution, and former petroleum storage and distribution. **Figure 3A** and **Figure 3B** present a compilation of historical features and structures associated with past Site operations.

The former MGP operated from 1910 to 1953 and generated gas using the coal carbonization, carbureted water gas, oil gas and producer gas processes. The other by-products, such as tar, ammonia, cyanogen, naphthalene, light oils, hydrogen sulfide, and spent oxides, were removed during the process of gas condensing and purifying in the Former Condenser House (Former Compressor Building No. 1) and the Former Coal Gas Purifier House (present Compressor Building No. 2). Gasification operations were generally conducted proximate to the current LNG facility (**Figure 3B**), with regulating and distribution of the gas closer to the current Natural Gas Regulating Facility (**Figure 3A**).

The LPG plant operated from 1952 to mid-1960s and the propane gas storage and distribution plant operated from the 1960s to the 1980s. These operations supplemented manufactured and natural gas during peak gas demands. LPG/propane operations were generally conducted proximate to the center of the Site near the Former Propane House (**Figure 3A** and **Figure 3B**).

Petroleum products used in the production of manufactured gas was stored in two aboveground storage tanks located at the northeast corner of the Site (proximate to the current LNG tank – **Figure 3B**). Reportedly, Providence Gas Company also constructed a 150,000-gallon oil or tar storage facility in 1953 (location unknown), bringing the total on-Site storage capacity to 2,150,000 gallons, at the time the MGP operations ceased. Additionally, Gulf Oil Corporation leased a portion of the Site during 1957 and built four aboveground storage tanks (ASTs) with an aggregate storage capacity of 420,000

gallons of kerosene on the premises (exact location of all tanks unknown, although known to be proximate to the existing LNG facility, the location of one of the tanks is shown on **Figure 3B**).

GZA conducted supplemental investigation activities at the Site in 2014, with follow up activities conducted in 2016 and 2017. A summary of these activities, relevant regulatory history of the Site and other background information is presented in **Appendix B** – *Site Investigation Background*. The information presented in **Appendix B** will be included in an addendum to the April 2003 Site Investigation Report (SIR). This SIR Addendum is expected to be submitted to RIDEM in 2021.

2.0 RESULTS OF MONITORING PROGRAM (2014-2017)

This section presents the results of the 2014-2017 monitoring program. As indicated previously, this monitoring program consists of monthly shoreline observations, semi-annual NAPL and groundwater elevation monitoring, NAPL recovery (if applicable) and annual groundwater quality sampling and analysis.

2.1 SHORELINE OBSERVATIONS

Between September 2011 and December 2017, the shoreline adjacent to the Site was inspected for the presence of sheens in the Providence River on an approximately at least monthly basis. Portions of the Site's shoreline are surrounded by both hard boom and absorbent sausage boom to contain any observed sheen. This boom has been in place since at least 2002. The current boom configuration is illustrated on **Figure 3B.** Sheens have been observed intermittently proximate to the shoreline in the cove area. More significant sheens have generally been observed at mid- or low-tide only and generally consisted of bright spots and bands. Sheens observed at high tide were generally less significant and observed intermittently. A summary of sheen observations proximate to the cove area is presented in **Table 1** - *Summary of Sheen Observations – 2011 to 2017*.

2.2 NAPL AND GROUNDWATER ELEVATION MONITORING

Comprehensive gauging rounds of the groundwater monitoring well network are conducted semi-annually. Between 2014 and 2017, this gauging was performed in June and July 2014, October 2014, April 2015, October 2015, May 2016, October 2016, and May 2017.[2] **Figure 4** – *Groundwater Monitoring Wells* presents the location of monitoring wells at the Site and **Figure 5** – *Shallow Groundwater Contours (May 2016)* presents the shallow groundwater contours at the Site. In addition, periodic NAPL measurements were collected from CHES-RW-A which was installed in September 2017. CHES RW-A is located in the northeast portion of the Natural Gas Regulation Facility, in the vicinity of Compressor Building No. 2; refer to **Figure 3B**. During the gauging events, depth to groundwater and measurements of the presence and thickness of NAPL were recorded. NAPL measurements were gauged using an oil-water interface probe. To gauge the presence of LNAPL, the probe was lowered into the well until the probe's continuous alarm indicated the presence of LNAPL. When the probe passes through the LNAPL into groundwater, an intermittent alarm is triggered. This information was used to gauge the thickness of LNAPL. Gauging for the presence of dense non-aqueous phase liquid (DNAPL) was conducted in the same manner as the LNAPL. Once the continuous alarm of the interface probe was heard, measurements were taken to the bottom of the well to record product thickness. Note, because the wells serve to collect these materials, NAPL thickness measurements in groundwater monitoring wells are typically greater than the actual thickness of NAPL in the surrounding formation.

[2] The groundwater monitoring well network was not gauged during the Fall of 2017.

An evaluation of NAPL recoverability was made during 2014, 2015 and 2017 at a subset of the wells where NAPL was present (RCA-21/RW-1, RCA-29 and CHES RW-A). A LNAPL/groundwater mixture was recovered from RCA-21/RW-1 and RCA-29 with a peristaltic pump with dedicated tubing positioned directly below the top of the LNAPL surface. The LNAPL was extracted from the well until groundwater was observed within the tubing at which point the pump was deactivated. In 2017, a LNAPL/groundwater mixture was recovered from CHES RW-A utilizing a vacuum truck. The recovery of the LNAPL from CHES RW-A was then monitored with an oil/water interface probe.

In addition, evidence of sheen was observed on purge water from monitoring wells GZA-201, GZ-304D, GZ-305S, GZ-306S, GZ-314S, GZ-319-D, RCA-3, RCA-22, RCA-28, VHB-10 and VHB-21 during the groundwater sampling events. Purge waters generated from wells GZA-201, GZ-303S, GZ-303D, GZ-304D, GZ-305S, GZ-306S, GZ-307S, GZ-308S, GZ-309D, GZ-311D, GZ-314S, GZ-314D, GZ-315D, GZ-318D, RCA-1, RCA-3, RCA-5, RCA-22, RCA-28, RCA-36, VHB-1, VHB-7, VHB-10 and VHB-21 were observed to exhibit a fuel oil-like odor, purge waters from RCA-3 were observed to exhibit a coal-tar like odor[3] and purge waters from RCA-11 were observed to exhibit a purifier-box like odor during groundwater sampling events. Refer to groundwater sampling logs in **Appendix C** - *Groundwater Sampling Low Flow Logs* for additional information.

The following tables were prepared to present gauging data collected:

- **Table 2** – *Summary of Groundwater and NAPL Gauging Results*
- **Table 3** – *Historical Light Non-Aqueous Phase Liquid (LNAPL) Well Gauging Data*
- **Table 4** – *Historical Dense Non-Aqueous Phase Liquid (DNAPL) Well Gauging Data*
- **Table 5** – *LNAPL Gauging – GZ-307S*
- **Table 6** – *LNAPL Gauging and Recovery – RCA-21/RW-1*
- **Table 7** – *LNAPL Gauging and Recovery – RCA-29*
- **Table 8** – *LNAPL Gauging and Recovery – CHES RW-A*

2.2.1 LNAPL Observations and Recovery

As described further below, observations of LNAPL in groundwater monitoring wells has been limited to certain isolated areas of the Site, generally in areas that were formerly utilized for gas manufacturing at the Site. Between November 2001 and 2017, only fifteen (15) of wells had product present at greater than or equal to 0.01 feet in thickness. These well locations are presented on **Figure 6** – *Historical NAPL Thickness (≥0.01 feet) (2001-2017)*. With the exception of RCA-21 and CHES RW-A, the remainder of LNAPL detections were less than 0.40 feet in thickness. The following provides a summary of LNAPL observations and recovery during 2014, 2015, 2016 and 2017:

- Measurable LNAPL (defined herein as greater than or equal to 0.01 feet) was detected in six (6) monitoring wells and trace LNAPL was detected in three (3) monitoring wells in 2014. Wells with measurable LNAPL detected are presented on **Figure 7A** – *2014 NAPL and Groundwater Analytical Data*. LNAPL thicknesses ranged from trace to 0.91 feet in 2014. Approximately 3 gallons of a LNAPL/groundwater mixture were recovered from RCA-21 and was containerized for subsequent off-Site disposal in 2014.

[3] Purge water generated from RCA-3 in 2014 was described to have a coal tar-like odor and in 2015 was described to have a fuel oil-like odor.

- Measurable LNAPL was detected in five (5) monitoring wells and trace LNAPL was detected in four (4) monitoring wells in 2015. Wells with measurable LNAPL detected are presented on **Figure 7B –** *2015 NAPL and Groundwater Analytical* Data. LNAPL thicknesses ranged from trace to 0.10 feet in 2015. Less than 0.1 gallons of a LNAPL/groundwater mixture was recovered from RCA-29 and was containerized for subsequent off-Site disposal in 2015.

- Measurable LNAPL was detected in four (4) monitoring wells and trace LNAPL was detected in two (2) monitoring wells in 2016. Wells with measurable LNAPL detected are presented on **Figure 7C –** *2016 NAPL and Groundwater Analytical* Data. LNAPL thicknesses ranged from trace to 0.08 feet in 2016. No NAPL was recovered at the Site during 2016.

- Measurable LNAPL was detected in GZ-307S and CHES RW-A in 2017, as presented on **Figure 7D –** *2017 NAPL and Groundwater Analytical* Data. As presented in **Appendix B**, CHES RW-A was installed in September 2017 during a facility project where LNAPL was detected in an excavation. LNAPL was detected in the well at thicknesses ranging from 0.09 to 1.02 feet. A LNAPL/groundwater mixture recovery was performed at CHES RW-A by CHES under the oversight of GZA utilizing a vacuum truck. Approximately 1,600 gallons of a LNAPL/groundwater mixture was recovered from this well.

Any recovered LNAPL/groundwater was collected and containerized in an appropriately labeled 55-gallon drums or other equivalent container for off-Site disposal. All IDW was transported off-Site by CHES to their facility in Braintree, Massachusetts or another certified facility. Copies of shipping records for the IDWs are included in **Appendix D -** *Investigation Derived Waste Shipping Records*.[4]

2.2.2 DNAPL

As indicated in **Table 2** and **Table 4**, between November 2001 and May 2017, DNAPL was encountered in only one (1) monitoring well (RCA-3), located in the north-central portion of the Site proximate to the cove, as shown on **Figure 3B**. With the exception of 0.17 feet detected in November 2001, DNAPL observations at this location have been limited to trace amounts. In 2014, a deeper monitoring well was installed (GZ-313D) near the location of RCA-3 to assess the vertical extent of DNAPL in this area. DNAPL was not encountered in GZ-313D between 2014 and 2016.[5]

2.3 GROUNDWATER FLOW DIRECTION

Comprehensive elevation gauging rounds of the groundwater monitoring well network were performed in June and July 2014, October 2014, April 2015, October 2015, May 2016, October 2016 and May 2017. GZA also surveyed the vertical elevation of the top of the PVC well casing and adjacent ground surface for each new and existing well relative to the North American Vertical Datum of 1988 (NAVD 1988). These depths to groundwater readings and reference elevations were used to calculate the elevation of the groundwater table at each well location. Monitoring well reference elevation and depth to groundwater measurements are presented in **Table 2**. **Table 2** also includes groundwater elevation data collected by GZA since July 2011 during our initial assessment of well conditions at the Site. The comprehensive groundwater elevations recorded during the May 2016 gauging round were used to prepare the shallow groundwater contours presented on **Figure 5.**

Site groundwater elevations are tidally influenced and have been observed to fluctuate approximately 3 feet between mean low and high water. Groundwater was encountered in many of the explorations at the Site at depths ranging from approximately 3 to 13 feet bgs (ranging from elevation 7 feet NAVD 88 to 1 feet NAVD 88), with shallower groundwater

[4] Note that these include NAPL/groundwater recovered from CHES RW-A.
[5] Both RCA-3 and GZ-313D were decommissioned in July 2016.

being encountered close to the Providence River at the LNG Facility. Shallower groundwater was also encountered proximate to the northern Site boundary in the Natural Gas Regulation Facility. Groundwater in this area is likely influenced by utility corridors. As presented on **Figure 5**, groundwater beneath the Site flows from west to east towards the Providence River, consistent with surrounding topography.

2.4 GROUNDWATER SAMPLING TECHNIQUES

As shown on **Figure 4**, the groundwater monitoring well network consisted of seventy-four (74) groundwater monitoring wells prior to 2016.[6] From 2014 through 2017, groundwater quality samples were collected from the locations described below. These well locations were chosen to provide a representative evaluation of overall Site groundwater quality. The following groundwater quality sampling and analysis was conducted from 2014 through 2017:

- 2014 - June 16th through 20th, 2014, included the collection of groundwater samples from forty (40) monitoring wells (GZ-301D, GZ-302S, GZ-302D, GZ-303S, GZ-303D, GZ-304D, GZ-305S, GZ-306, GZ-307S, GZ-308S, GZ-309D, GZ-311D, GZ-312S, GZ-312D, GZ-313D, GZ-314S, GZ-314D, GZ-315D, GZ-318D, GZ-319D, GZ-320D, RCA-1, RCA-3, RCA-5, RCA-11, RCA-12R, RCA-13, RCA-22, RCA-28, RCA-36, RCA-38, VHB-1, VHB-3, VHB-6, VHB-7, VHB-8R, VHB-10, VHB-13, VHB-20 and VHB-21);

- 2015 - October 14th and 19th, 2015, included the collection of twenty-one (21) groundwater samples (GZ-301D, GZ-304D, GZ-309D, GZ-314S, GZ-314D, RCA-1, RCA-3, RCA-11, RCA-12R, RCA-22, RCA-28, RCA-36, RCA-38, VHB-1, VHB-3, VHB-6, VHB-7, VHB-8R, VHB-10, VHB-13 and VHB-21);

- 2016 - May 18th and 21st, 2016, included the collection of twenty-one (21) groundwater samples (GZ-301D, GZ-304D, GZ-309D, GZ-314S, GZ-314D, RCA-1, RCA-3, RCA-11, RCA-12R, RCA-22, RCA-28, RCA-36, RCA-38, VHB-1, VHB-3, VHB-6, VHB-7, VHB-8R, VHB-10, VHB-13 and VHB-21); and

- 2017 - May 30th and 31st, 2017, included the collection of eleven (11) groundwater samples (GZA-201, GZ-301D, GZ-304D, GZ-309D, GZ-319D, RCA-1, RCA-12R, RCA-15, RCA-22, RCA-36 and VHB-20).

During each round, groundwater samples were collected in general accordance with EPA's January 19, 2010 Low Stress (low flow) Purging and Sampling Procedure. Prior to sampling, the depth to static groundwater and any NAPL present was measured in each well using an ORS electronic oil/water interface probe. During groundwater sampling, a variable speed peristaltic pump was utilized to control the rate of purging. Dedicated 1/4-inch polyethylene tubing installed in each of the existing wells was utilized as the intake and discharge tubing for the pumps. This tubing has the potential to become brittle when exposed to UV light (sunlight) and where necessary this tubing was replaced, with new dedicated tubing as indicated on the field sampling logs. Groundwater sampling logs are included in **Appendix C**. Pharmaceutical grade tubing was utilized as the pump head tubing and connected to the intake and discharge tubing by clamps sufficient to prevent the introduction of air into the sample. If NAPL was noted in the monitoring well prior to sampling, new tubing was installed in the monitoring well. In order to limit the potential for LNAPL to enter the sampling tubing during the collection of the sample, a peristaltic pump was used to force air through the tubing as it passed through the LNAPL/groundwater interface. If DNAPL was noted in the well, the sampling tubing was installed in these wells carefully so that the DNAPL layer was not intercepted.

During sampling, field readings were recorded for pH, temperature, specific conductance, oxidation reduction potential (ORP) and dissolved oxygen (DO) using a YSI Professional Plus® portable water quality meter with a flow-through cell. A LaMotte Turbidimeter® was used to monitor the turbidity. These field readings are presented in the field sampling logs,

[6] As noted in **Appendix B**, forty-four (44) monitoring wells were decommissioned in 2016.

attached as **Appendix C**. As indicated on the logs, the monitoring wells were pumped until field screening parameters were stabilized prior to collecting the samples.

Samples were placed in laboratory-provided, hydrochloric acid-preserved 40 mL glass vials with septa caps for VOC analysis via EPA Method 8260B. Samples were then packed in an ice chest and transported under chain-of-custody protocol to ESS Laboratory located in Cranston, Rhode Island.

The analytical results from these groundwater monitoring activities are provided in **Appendix E** - *Laboratory Reports*. The following tables were prepared to present the groundwater monitoring results:

- **Table 9** *Summary of 2014 Groundwater VOC Analytical Results*
- **Table 10** *Summary of 2015 Groundwater VOC Analytical Results*
- **Table 11** *Summary of 2016 Groundwater VOC Analytical Results*
- **Table 12** *Summary of 2017 Groundwater VOC Analytical Results*

QA/QC samples were also collected and analyzed during these groundwater sampling activities. These QA/QC procedures and samples are summarized below in Section 2.5.

2.5 QUALITY ASSURANCE/QUALITY CONTROL SAMPLING AND ANALYSIS

During the June 2014, October 2015, May 2016 and May 2017 sampling rounds, all groundwater samples were submitted to ESS Laboratory in Cranston, Rhode Island for analysis. The samples were transported to the laboratory under chain of custody protocol.

Field duplicate samples were collected and analyzed to evaluate the reproducibility of the sampling methods. Duplicate groundwater samples were collected sequentially after achieving stabilization of the geochemical parameters. Duplicate samples were collected at a frequency of 1 duplicate sample per 20 samples collected on average. Duplicate groundwater sampling results are included in the applicable summary table, with a reference to the applicable sample location in the notes section. A VOC trip blank accompanied each cooler of groundwater samples to the laboratory and was analyzed for the presence of VOCs to evaluate potential cross contamination during sample transport.

The analytical results and chain-of-custody forms are presented in **Appendix E** and **Table 13** - *Summary of Groundwater QA/QC VOC Analytical Results*.

The following summarizes the groundwater QA/QC samples for the 2014-2017 sampling events:

QA/QC Sample Type	Matrix	Year				Analysis / Comment
		2014	2015	2016	2017	
Samples	Groundwater	40	21	21	11	VOCs
Field Duplicates	Groundwater	2	2	2	1	VOCs
Trip Blanks	Groundwater	3	2	1	2	VOCs

Upon receipt, GZA audited the analytical data to assess whether the analytical data met the data quality objectives of the project. This audit included evaluation of QA/QC samples (*e.g.*, Lab Control Samples/Lab Control Sample Duplicates, Method Blanks, Field Blanks, and Field Duplicates) to evaluate the representativeness, comparability, completeness, precision, accuracy, and sensitivity of the analytical data. An evaluation of the groundwater data is presented in **Appendix F** - *Summary of Groundwater QA/QC Results*.

The groundwater analytical results generally met the project data quality objectives.

2.6 GROUNDWATER ANALYTICAL RESULTS

Analytical data from the 2014, 2015, 2016 and 2017 sampling events are summarized in **Tables 9 through 12 -** *Summary of Groundwater VOC Analytical Results*, respectively per year. These tables include comparisons to Method 1 (or Method 2 as appropriate) GB Groundwater Objectives and Upper Concentration Limits (UCL). In general, the analytical results reported during these rounds were consistent with levels detected previously.

Groundwater quality at the Site is generally characterized by few isolated exceedances of the GB Groundwater Objectives for benzene, ethylbenzene and naphthalene,[7] primarily in areas of the Site where former MGP features were located: downgradient of former tar/ammonia pits (VHB-7), proximate to the former purifier building (RCA-28), proximate to the former gasholder No. 18 (VHB-10), proximate to former gasholder No. 16 (GZ-314S/D and GZ-315D) and downgradient of the former ammonia works buildings (VHB-21/GZ-318D). The presence of these compounds in groundwater samples is typical for former MGP sites and consistent with historical groundwater sampling results for the Site.

No groundwater samples were collected from the Holcim Cement Facility portion of the Site. No GB Upper Concentration Limit (UCL) exceedances were detected.

The following sections discuss the dissolved-phased VOC analytical results for the 2014, 2015, 2016 and 2017 sampling events as compared to the Method 1 (or Method 2 as appropriate) objectives by Site area.[8]

2.6.1 CNG Fueling Station

The CNG Fueling Station area is primarily grass with a smaller portion of paved area. The CNG fueling station and active CNG buildings are located in this area. Four (4) wells (RCA-12R, GZ-301D, GZ-302S, GZ-302D) were sampled from this area during the monitoring events, as shown on **Figures 7A through 7D** for the 2014, 2015, 2016 and 2017 sampling events, respectively. Results are presented in **Tables 9**, **10**, **11** and **12** for the 2014, 2015, 2016 and 2017 sampling events, respectively.

VOCs were detected in three (3/4) samples collected in the CNG Fueling Station area during the 2014 sampling round. Naphthalene, ethylbenzene and benzene were not detected in groundwater samples collected from this area during the 2014 event. Vinyl chloride was detected in one (1/4) sample, RCA-12R, at a concentration (0.0022 mg/L), slightly exceeding the GB Groundwater Objective (0.002 mg/L). As indicated previously, vinyl chloride is not a Site constituent and is likely from an off-Site source.

VOCs were detected at GZ-301D, collected in the CNG Fueling Station area during the 2015 sampling round. Ethylbenzene and naphthalene were not detected in groundwater samples collected from this area during the 2015 event. Benzene was detected in GZ-301D at a concentration of 0.0002 mg/L, well below the GB Groundwater Objective of 0.14 mg/L. Vinyl chloride was also detected in the groundwater sample from GZ-301D, at a concentration (0.0038 mg/L), exceeding the GB Groundwater Objective.

VOCs were detected in two (2/2) samples collected in the CNG Fueling Station area during the 2016 sampling round (RCA-12R and GZ-301D). Ethylbenzene and naphthalene were not detected in groundwater samples collected from this area during the 2016 event. Benzene was detected in GZ-301D at a concentration of 0.0002 mg/L, well below the GB

[7] As noted below, vinyl chloride was also detected in few Site wells in excess of the GB Groundwater Objective. Vinyl chloride is not a Site compound of concern and is likely originating upgradient of the Site.

[8] Note that there are no active monitoring wells located within the Holcim Cement Facility.

Groundwater Objective of 0.14 mg/L. Vinyl chloride was detected in one (1/2) sample, RCA-12R, at a concentration (0.0022 mg/L), exceeding the GB Groundwater Objective.

VOCs were detected in two (2/2) samples collected in the CNG Fueling Station area during the 2017 sampling round (RCA-12R and GZ-301D). Ethylbenzene, benzene and naphthalene were not detected in groundwater samples collected from this area during the 2017 event. Vinyl chloride was detected at a concentration of 0.0019 mg/L in the groundwater sample collected from GZ-301D, below the GB Groundwater Objective of 0.002 mg/L. No VOCs were detected above the GB Groundwater Objectives.

Historically, exceedances of the GB Groundwater Objectives in this area have been limited to detected concentrations of vinyl chloride from RCA-12R and GZ-301D. These monitoring wells are located proximate to Allens Avenue and the property line and groundwater contours (**Figure 5***)* indicate that groundwater flow originates upgradient. Additionally, as indicated previously vinyl chloride is not a compound typically associated with former MGP operations. Therefore, the vinyl chloride detections are likely due to upgradient sources.

2.6.2 Natural Gas Regulation Area

The Natural Gas Regulation Area is covered primarily by grasses or crushed stone, with some paved areas such as the parking lot and roadways. The gas operations building, Compressor Building No.2 and active natural gas regulator buildings are located in this area. Twenty-six (26) wells (RCA-1, RCA-3, RCA-11, RCA-13, RCA-15, VHB-1, VHB-3, VHB-6, VHB-7, VHB-8R, VHB-10, VHB-21, GZ-303S, GZ-303D, GZ-304D, GZ-305S, GZ-306S, GZ-307S, GZ-308S, GZ-309D, GZ-311D, GZ-312S, GZ-312D, GZ-313D, GZ-318D, GZ-320D) were sampled from this area during the monitoring events, as shown on **Figures 7A through 7D** for the 2014, 2015, 2016 and 2017 sampling events, respectively. Results are presented in **Tables 9**, **10**, **11** and **12** for the 2014, 2015, 2016 and 2017 sampling events, respectively.

VOCs were detected in twenty-one (21/25) samples collected in the Natural Gas Regulation Area during the 2014 sampling round. Naphthalene was detected in sixteen (16/25) samples, at concentrations ranging from 0.0011 to 9.8 mg/L. The concentrations detected in VHB-21 (9.8 mg/L) and GZ-318D (2.88 mg/L) exceeded the Method 2-derived GB Groundwater Objective[9] (2.67 mg/L). Benzene was detected in eleven (11/25) samples, at concentrations ranging from 0.0015 to 1.82 mg/L. The concentration detected in GZ-318D (1.82 mg/L) exceeded the GB Groundwater Objective of 0.14 mg/L. Ethylbenzene was detected in eight (8/25) samples, at concentrations ranging from 0.0016 to 0.92 mg/L, below the GB Groundwater Objective of 1.60 mg/L. Vinyl chloride was detected in one (1/25) sample, GZ-303S, at a concentration (0.007 mg/L) exceeding the GB Groundwater Objective of 0.002 mg/L.

VOCs were detected in eight (8/12) samples collected in the Natural Gas Regulation Area during the 2015 sampling round. Naphthalene was detected in six (6/12) samples, at concentrations ranging from 0.0016 to 8.85 mg/L. The concentration detected in VHB-7 (5.16 mg/L) and VHB-21 (8.85 mg/L) exceeded the Method 2 GB Groundwater Objective. Benzene was detected in eight (8/12) samples, at concentrations ranging from 0.0002 to 0.682 mg/L. The concentrations detected in VHB-10 (0.162 mg/L) and VHB-21 (0.682 mg/L) exceeded the GB Groundwater Objective. Ethylbenzene was detected in four (4/12) samples, at concentrations ranging from 0.0021 to 1.47 mg/L, below the GB Groundwater Objective of 1.60 mg/L. Vinyl chloride was detected in one (1/12) sample, RCA-1, at a concentration (0.0074 mg/L) exceeding the GB Groundwater Objective.

VOCs were detected in twelve (12/12) samples collected in the Natural Gas Regulation Area during the 2016 sampling round. Naphthalene was detected in twelve (12/12) samples, at concentrations ranging from 0.0002 to 12.1 mg/L. The concentration detected in VHB-21 (12.1 mg/L) exceeded the Method 2 GB Groundwater Objective. Benzene was detected in nine (9/12) samples, at concentrations ranging from 0.0002 to 0.148 mg/L. The concentration detected in VHB-21 (0.148

[9] Method 2 GB Groundwater Objective for naphthalene developed by GZA in accordance with Appendix F of the Remediation Regulations.

mg/L) exceeded the GB Groundwater Objective. Ethylbenzene was detected in six (6/12) samples, at concentrations ranging from 0.0002 to 1.21 mg/L, below the GB Groundwater Objective of 1.60 mg/L. Vinyl chloride was detected in two (2/12) samples, RCA-1 (0.0067 mg/L) and GZ-304D (0.0002 mg/L). The concentration detected of vinyl chloride at RCA-1 exceeded the GB Groundwater Objective.

VOCs were detected in two (2/4) samples collected in the Natural Gas Regulation Area during the 2017 sampling round (RCA-1 and GZ-309D). Naphthalene was detected in two (2/4) samples, at concentrations ranging from 0.0022 to 0.0251 mg/L, below the Method 2 GB Groundwater Objective of 2.67 mg/L. Benzene was detected in one (1/4) sample, at a concentration of 0.0028 mg/L, below the GB Groundwater Objective of 0.14 mg/L. Ethylbenzene was not detected in any of the groundwater samples. Vinyl chloride was detected in one (1/4) sample, RCA-1 (0.0059 mg/L), in excess of the GB Groundwater Objective.

Historically, few isolated exceedances of the Method 1/2 GB Groundwater Objectives for benzene and naphthalene have been detected in the Natural Gas Regulation Area in areas of the Site where former MGP features were located: downgradient of former tar/ammonia pits (VHB-7), proximate to the former gasholder No. 18 (VHB-10) and downgradient of the former ammonia works buildings (VHB -21/GZ-318D). The presence of these compounds in groundwater samples is typical for former MGP sites.

Vinyl chloride has also been detected in excess of the GB Groundwater Objective in RCA-1 and GZ-303S. These monitoring wells are located proximate to Allens Avenue and the property line, as shown on **Figure 3A** and **Figure 4**, and groundwater contours (**Figure 5**) indicate that groundwater flow originates upgradient. Additionally, vinyl chloride is not a compound typically associated with former MGP operations. Therefore, the vinyl chloride exceedances are likely due to upgradient sources.

2.6.3 LNG Facility

The LNG Facility area is covered with concrete, crushed stone or asphalt areas. The LNG tank, LNG fueling station and LNG facility control buildings are located in this area. Twelve (12) wells (RCA-5, RCA-22, RCA-28, RCA-36, RCA-38, VHB-13, VHB-20, GZA-201, GZ-314S, GZ-314D, GZ-315D, GZ-319D) were sampled from this area during the monitoring events, as shown on **Figures 7A through 7D** for the 2014, 2015, 2016 and 2017 sampling events, respectively. Results are presented in **Tables 9**, **10**, **11** and **12** for the 2014, 2015, 2016 and 2017 sampling events, respectively.

VOCs were detected in nine (9/11) samples collected in the LNG Facility area during the 2014 sampling round. Naphthalene was detected in nine (9/11) samples, at concentrations ranging from 0.0128 to 5.37 mg/L. The concentrations detected in RCA-28 (2.95 mg/L), GZ-314S (5.37 mg/L), GZ-314D (3.43 mg/L) and GZ-315D (2.88 mg/L) exceeded the Method 2 GB Groundwater Objective. Benzene was detected in nine (9/11) samples, at concentrations ranging from 0.008 to 7.27 mg/L. The concentrations detected in RCA-22 (0.766 mg/L), RCA-36 (0.158 mg/L), GZ-314S (7.27 mg/L), GZ-314D (2.01 mg/L) and GZ-315D (0.698 mg/L) exceeded the GB Groundwater Objective. Ethylbenzene was detected in eight (8/11) samples, below the GB Groundwater Objective, at concentrations ranging from 0.0047 to 1.57 mg/L. Vinyl chloride was not detected in any groundwater samples collected in this area.

VOCs were detected in five (5/7) samples collected in the LNG Facility area during the 2015 sampling round. Naphthalene was detected in five (5/7) samples, at concentrations ranging from 0.0051 to 5.77 mg/L. The concentration detected in RCA-28 (5.77 mg/L), GZ-314S (4.44 mg/L) and GZ-314D (2.99 mg/L) exceeded the Method 2 GB Groundwater Objective. Benzene was detected in five (5/7) samples, at concentrations ranging from 0.0229 to 7.67 mg/L. The concentration detected in RCA-22 (1.88 mg/L), GZ-314S (7.67 mg/L) and GZ-314D (1.79 mg/L) exceeded the GB Groundwater Objective. Ethylbenzene was detected in five (5/7) samples, at concentrations ranging from 0.0028 to 2.37 mg/L. The concentration

detected in GZ-314S (2.37 mg/L) exceeded the GB Groundwater Objective (1.6 mg/L). Vinyl chloride was not detected in any groundwater samples collected in this area.

VOCs were detected in all seven (7/7) groundwater samples collected in the LNG Facility area during the 2016 sampling round. Naphthalene was detected in all the groundwater samples collected during the 2016 sampling event at concentrations ranging from 0.0006 to 6.41 mg/L. The concentration detected in RCA-28 (3.19 mg/L) and GZ-314S (6.41 mg/L) exceeded the Method 2 GB Groundwater Objective. Benzene was detected in six (6/7) samples, at concentrations ranging from 0.021 to 4.83 mg/L. The concentration detected in RCA-22 (1.11 mg/L), GZ-314S (4.83 mg/L) and GZ-314D (1.22 mg/L) exceeded the GB Groundwater Objective. Ethylbenzene was detected in six (6/7) samples, at concentrations ranging from 0.0043 to 1.83 mg/L. The concentration detected in GZ-314S (1.83 mg/L) exceeded the GB Groundwater Objective. Vinyl chloride was not detected in any groundwater samples collected in this area.

VOCs were detected in all five (5/5) groundwater samples collected in the LNG Facility area during the 2017 sampling round. Naphthalene was detected in four (4/5) samples, at concentrations ranging from 0.0027 to 0.671 mg/L; no detections exceeded the Method 2 GB Groundwater Objective. Benzene was detected in four (4/5) samples, at concentrations ranging from 0.0086 to 0.862 mg/L. The concentration of benzene detected in RCA-22 (0.862 mg/L) exceeded the GB Groundwater Objective. Ethylbenzene was detected in three (3/5) samples, below the GB Groundwater Objective, at concentrations ranging from 0.0026 to 0.039 mg/L. Vinyl chloride was not detected in any groundwater samples collected in this area.

Historically, few isolated exceedances of the GB Groundwater Objectives for benzene, ethylbenzene and naphthalene have been detected in the LNG Facility in areas of the Site where former MGP features were located: proximate to the former purifier building (RCA-28) and proximate to former MGP features (RCA-22, RCA-36, GZ-314S/D and GZ-315D). The presence of these compounds in groundwater samples is typical for former MGP sites. Vinyl chloride was not detected in excess of the GB Groundwater Objective in the LNG Facility Area.

2.7 INVESTIGATION DERIVED WASTE MANAGEMENT

All NAPL, groundwater, decontamination water and development water generated between 2014-2017 were placed into 55-gallon drums for subsequent off-Site disposal. The resulting drums were labeled and temporarily stored on-Site. All IDWs were transported off-Site by CHES to their facility in Braintree, Massachusetts. Copies of shipping records for the IDWs are included in **Appendix D**.

3.0 SUMMARY AND CONCLUSIONS

As part of the annual Site monitoring events between 2014-2017: forty (40) monitoring wells were sampled in June 2014 for VOCs, twenty-one (21) monitoring wells were sampled in October 2015 for VOCs, twenty-one (21) monitoring wells were sampled in May 2016 for VOCs and eleven (11) monitoring wells were sampled in May 2017 for VOCs; all accessible wells were gauged to determine the groundwater elevation and presence of NAPL on an approximate semi-annual basis; NAPL recovery was performed at certain well locations; and shoreline observations were made on an approximately monthly basis throughout each year. In general, observations made and the results of analytical testing during 2014, 2015, 2016 and 2017 were consistent with historical results, as summarized below:

- Sheen observations were consistent with historical observations and were limited to the cove to the northwestern portion of the Site. Sheen observations were limited to several localized and immediate area of the shoreline and were observed at various tidal stages. Sheen was observed intermittently throughout the 2014 to 2017 monitoring period.

- NAPL Observations:
    - Measurable NAPL (greater than or equal to 0.01 feet) was limited to six (6) monitoring well locations in 2014. LNAPL thicknesses ranged from trace to 0.91 feet in 2014. Approximately 3 gallons of a LNAPL/groundwater mixture were recovered from Site monitoring wells and was containerized for subsequent off-Site disposal in 2014.
    - Measurable NAPL was limited to five (5) monitoring well locations in 2015. LNAPL thicknesses ranged from trace to 0.10 feet in 2015. Approximately <0.1 gallons of a LNAPL/groundwater mixture were recovered from Site monitoring wells and was containerized for subsequent off-Site disposal in 2015.
    - Measurable NAPL was limited to four (4) monitoring well locations in 2016. LNAPL thicknesses ranged from trace to 0.08 feet in 2016. No NAPL recovery was conducted in 2016.
    - Measurable NAPL was limited to two (2) monitoring well locations in 2017. LNAPL thicknesses was observed to range between 0.02 and 1.02 feet in 2017. Approximately 1,600 gallons of a LNAPL/groundwater mixture was recovered from CHES RW-A in 2017.
    - Observations of both LNAPL and DNAPL continue to be very localized and do not indicate the presence of significant contiguous source layers in the subsurface. Typical of MGP sites, recovery attempts suggest that observed NAPLs are unlikely to be significantly mobile in the subsurface.
- Groundwater Quality:
    - Groundwater quality at the Site is generally characterized by few isolated exceedances of the GB Groundwater Objectives for benzene, ethylbenzene and naphthalene, primarily in areas of the Site where former MGP features were located.
    - Exceedances of the Method 1/2 GB Groundwater Objectives were limited to (14/40) wells sampled during the 2014 monitoring round, (13/21) wells sampled during the 2015 monitoring round, (10/21) wells sampled during the 2016 monitoring round and (2/11) wells sampled during the 2017 monitoring round. Compounds detected in excess of the GB Groundwater Objectives were limited to naphthalene, benzene, ethylbenzene, and vinyl chloride.
    - The presence of naphthalene, benzene and ethylbenzene in groundwater samples is typical for former MGP sites. Exceedances of the GB Groundwater Objectives for these compounds is generally limited to areas proximate to former MGP features.
    - Vinyl chloride exceedances were limited to wells located proximate to Allens Avenue and the property line. These vinyl chloride detections are likely due to upgradient sources.

TABLES

TABLE 1
SUMMARY OF SHEEN OBSERVATIONS 2011 TO 2017
642 Allens Avenue
Providence, Rhode Island

Date of Observation	Time of Observation	Approximate Tidal Stage	Approximate Location of Sheen Observed	Description of Sheen Observed
9/22/2011	8:40	Low	Along shoreline stretching from RCA-40 to RCA-3.	Small dull spots.
9/22/2011	9:00	Low	Outfall proximate to Motiva property.	Moderate dull bands.
9/22/2011	9:15	Low	Along shoreline stretching from RCA-40 to RCA-3.	Large dull bands and moderate dull spots.
10/28/2011	9:00	High	No sheens observed.	
	14:30	Mid-Low	No sheens observed.	
12/22/2011	10:40	Low	Outside of Boom, along shoreline stretching from RCA-5 to RCA-20.	Moderate dull bands and small dull spots.
12/22/2011	10:40	Low	Within the boom, along shoreline stretching from CHES RW-5 to RW-3.	Large dull bands and moderate dull spots.
12/22/2011	11:00	Low	Outfall proximate to Motiva property.	Very small dull spots
2/3/2012	12:00	Low-Mid	Outside of Boom, north of the RIPDES outfall (within cove)	Moderate dull spots
2/8/2012	15:10	Mid	Within the boom, along shoreline stretching from CHES RW-5 to RW-3.	Small dull spots.
2/15/2012	11:55	Mid	Outside of Boom, along shoreline stretching from RCA-5 to RCA-20.	Small dull spots.
2/15/2012	11:55	Mid	Within the boom, along shoreline stretching from CHES RW-5 to RW-3.	Large bright bands.
2/23/2012	15:00	Low	No sheens observed.	
3/2/2012	14:20	High	Within the boom, along shoreline stretching from CHES RW-5 to RW-3.	Minor to moderate dull spots and bands of sheen
3/2/2012	14:30	High	Outfall proximate to Motiva property.	Large bright bands.
3/9/2012	13:10	Low	Outside of boom, along shoreline stretching from CHES RW-5 to RW-3.	Moderate to minor dull spots of sheen
3/9/2012	13:05	Low	Outfall proximate to Motiva property.	Slight bright bands of sheen
4/13/2012	10:53	Mid	Within the boom, along shoreline stretching from CHES RW-5 to RW-3.	Moderate to minor dull spots of sheen
4/13/2012	10:58	Mid	Outfall proximate to Motiva property.	Slight bright bands of sheen
5/16/2012	13:45	Mid-High	Within the boom, along shoreline stretching from CHES RW-5 to RW-3.	Minor to moderate dull bands of sheen
5/16/2012	13:45	Mid-High	Outfall proximate to Motiva property.	Moderate bright bands of sheen
6/29/2012	9:35	Low	Outside of boom, near LNG tank	Bright large sheen spot
6/29/2012	9:35	Low	Within the boom, along shoreline stretching from CHES RW-5 to RW-3.	Bright to dull bands of sheen
6/29/2012	9:45	Low	Outfall proximate to Motiva property.	Slight dull spots
7/19/2012	9:50	Low	Outside of Boom, north of the RIPDES outfall (within cove) to Propane House	Bright moderate sheen spots
7/19/2012	9:50	Low	Outfall proximate to Motiva property.	Bright moderate sheen spots
8/2/2012	8:45	High	Within the boom, along shoreline at CHES RW-4	Bright moderate sheen bands
8/24/2012	10:10	Mid	Outside of boom, near CHES RW-4	Bright moderate sheen spot
8/24/2012	10:10	Mid	Within the boom, from CHES RW-4 to Propane House	Bright moderate sheen spots and bands
8/24/2012	10:10	Mid	Outside of boom, from Propane House to RCA-3	Bright slight sheen spots and bands
8/24/2012	10:10	Mid	Outfall proximate to Motiva property.	Bright slight sheen spots and bands
9/6/2012	No sheen observed at high tide.			
9/13/2012	11:20	Low	Within the boom, near CHES RW-4	Bright slight sheen bands
9/13/2012	11:45	Low	Outside of boom, near CHES RW-4	Bright slight sheen spot
9/13/2012	11:45	Low	Within the boom, between CHES RW-3 and CHES RW-4	Bright moderate bands and spots of sheen
9/25/2012	14:00	Mid	Outfall proximate to Motiva property.	Slight bright bands of sheen
10/31/2012	10:15	High	Within the boom, near CHES RW-4	Slight bright spots of sheen
11/19/2012	No sheen observed at high tide.			
11/20/2012	16:20	Mid-High	Within the boom, between CHES RW-3 and CHES RW-4	Moderate long bright bands of sheen
12/20/2012	12:00	Mid-High	No sheens observed.	

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SUMMARY OF SHEEN OBSERVATIONS 2011 TO 2017
642 Allens Avenue
Providence, Rhode Island

Date of Observation	Time of Observation	Approximate Tidal Stage	Approximate Location of Sheen Observed	Description of Sheen Observed
1/4/2013	No sheen observed at high tide.			
2/1/2013	No sheens observed at high tide. High wind was also noted.			
2/26/2013	12:48	Low	Within the boom, near CHES RW-4	Slight bright spots of sheen
2/26/2013	12:52	Low	Within the boom, between CHES RW-3 and CHES RW-4	Slight bright spots of sheen
2/26/2013	12:56	Low	Outfall proximate to Motiva property.	Moderate long bright bands of sheen
3/22/2013	11:22	Low	Within the boom, between CHES RW-3 and CHES RW-4	Moderate bright bands of sheen
3/25/2013	11:00	Low	Within the boom, within sediments exposed at low tide between CHES RW-3 and CHES RW-4	Slight sheen spots
4/2/2013	11:00	Mid	Within the boom, near CHES RW-4	Bright bands of sheen
4/24/2013	No sheens observed at high tide.			
4/30/2013	No sheens observed at high tide.			
5/6/2013	No sheens observed at high tide.			
5/14/2013	8:15	Mid-High	Within the boom, between CHES RW-3 and CHES RW-4	Bands of dull sheen
5/24/2013	No sheens observed at mid-high tide.			
5/31/2013	8:00	Low	Within the boom, between CHES RW-3 and CHES RW-5	Slight dull bands and spots
5/31/2013	9:45	Mid	Within the boom, between CHES RW-3 and CHES RW-5	Slight to moderate dull bands and spots
5/31/2013	9:50	Mid	Within the boom, within sediments exposed at mid tide between CHES RW-3 and CHES RW-4	Bright spots of sheen
6/2/2013	No sheens observed at mid tide. High wind was also noted.			
6/3/2013	9:10	Low	Outside the boom, directly near the repair area (proximate to the gate area) in the LNG portion of the property	Bright to dull spots and blebs of sheen
6/3/2013	9:10	Low	Within the boom, between CHES RW-3 and CHES RW-5	Moderate dull bands of sheen
6/3/2013	12:30	Mid	Within the boom, between CHES RW-3 and CHES RW-5	Slight dull bands of sheen
6/3/2013	13:15	Mid	Outside the boom, along the edge of the LNG portion of the property, directly adjacent to the pathway. The sheen was noted as originating from the western part of the cove.	Slight dull bands of sheen
6/10/2013	No sheens observed at high tide.			
6/11/2013	12:30	Mid-High	Within the boom, between CHES RW-3 and CHES RW-5	Moderate bright bands of sheen
6/13/2013	14:25	Mid	Within the boom, proximate to CHES RW-5	Moderate dull to bright bands and spots
6/19/2013	No sheens observed at high tide.			
6/20/2013	8:30	Mid	Within the boom, between CHES RW-3 and CHES RW-5	Moderate bright bands of sheen
6/25/2013	11:00	High	Within the boom, near CHES RW-4	Slight bright spots of sheen
7/31/2013	No sheens observed at high tide.			
8/28/2013	12:30	Mid-High	Within the boom, directly near the repair area (proximate to the gate area) in the LNG portion of the property	Very slight bright spots
9/5/2013	15:06	Low	Within the boom, near CHES RW-4	Bright to dull spots and blebs of sheen
9/27/2013	No sheens observed at high tide. High wind was also noted.			
10/30/2013	8:30	Mid	Within the boom, directly near the repair area (proximate to the gate area) in the LNG portion of the property	Very slight bright spots
11/19/2013	No sheens observed at high tide. High wind was also noted.			
12/20/2013	10:15	Mid - Low	Within the boom, directly near the repair area (proximate to the gate area) in the LNG portion of the property	Very slight bright spots

TABLE 1
SUMMARY OF SHEEN OBSERVATIONS 2011 TO 2017
642 Allens Avenue
Providence, Rhode Island

Date of Observation	Time of Observation	Approximate Tidal Stage	Approximate Location of Sheen Observed	Description of Sheen Observed
1/27/2014	9:53	Low	Outfall proximate to Motiva property.	Slight bright bands of sheen
2/25/2014	14:00	Mid - High	Within the boom, between CHES RW-3 and CHES RW-4	Slight dull bands of sheen
3/20/2014	9:15	Mid - High	Within the boom, between CHES RW-3 and CHES RW-5	Moderate long dull bands of sheen
4/29/2014	12:30	Mid-Low	Within the boom, between CHES RW-4 and CHES RW-5	Slight dull bands of sheen
	12:40		Outfall proximate to Motiva property.	Slight bright spots of sheen
5/22/2014	No sheens observed at high tide. High wind and rain were also noted.			
6/3/2014	No sheens observed at high tide.			
7/24/2014	No sheens observed at high tide.			
8/24/2014	No sheens observed at high tide. High wind was also noted.			
9/24/2014	10:25	High-Mid	Within the boom, near CHES RW-3	Slight dull sheen spots and bands
	10:30		Within the boom, near Propane House	Moderate dull to bright bands and spots
10/30/2014	7:30	Low	Inside and outside boom, between CHES RW-3 and CHES RW-5	Slight bands of dull sheen
			Within the boom, near CHES RW-3	Strong bright bands of sheen
11/13/2014	No sheens observed at high tide.			
12/12/2014	14:00	Mid	Within the boom, near CHES RW-3	Slight dull bands of sheen
1/29/2015	No sheens observed at mid tide.			
2/25/2015	No sheens observed. Cove completely frozen over.			
3/23/2015	No sheens observed at high tide. High wind was also noted.			
4/9/2015	No sheens observed at high tide. High wind was also noted.			
5/22/2015	7:43	Low	Within the boom, near CHES RW-3	Very slight bright spots
6/17/2015	No sheens observed at mid tide. High wind was also noted.			
7/17/2015	11:29	Mid	Within the boom, between CHES RW-3 and RCA-5	Moderate to bright spots of sheen
8/28/2015	12:20	Low	Inside and outside boom, between CHES RW-3 and CHES RW-5	Moderate dull spots of sheen
9/16/2015	9:40	Mid-High	Within the boom, near CHES RW-3	Slight dull bands of sheen
10/14/2015	No sheens observed at high tide.			
11/17/2015	No sheens observed at high tide.			
12/30/2015	No sheens observed at high tide.			
1/29/2016	No sheens observed at mid tide.			
2/22/2016	12:00	Mid-High	Within Boom near CHES RW-3	Slight sheen spots
3/16/2016	8:30	Mid-High	Within Boom between CHES RW-3 and CHES RW-5	Minor sheening. Dull to bright streaks of sheen
4/28/2016	3:30	Mid-High	Within Boom near CHES RW-3	Bright Plates/Streaks of Sheen
5/19/2016	11:00	Mid-Low	Within Boom near CHES RW-3	Dull plates of sheen
6/10/2016	No sheens observed at mid-high tide.			
7/26/2016	10:00	Low	Within Boom near CHES RW-3	Slight sheen
8/30/2016	13:00	Low	Inside and outside boom, between CHES RW-3 and CHES RW-5	Plates of sheen
9/16/2016	9:00	High	Within Boom	Slight Sheen (Streaks)
10/30/2016	No Sheen observed			
11/30/2016	11:00	Mid	Within Boom near CHES RW-3	Platlets of sheen
12/13/2016	11:45	No sheen observed at low tide		

TABLE 1
SUMMARY OF SHEEN OBSERVATIONS 2011 TO 2017
642 Allens Avenue
Providence, Rhode Island

Date of Observation	Time of Observation	Approximate Tidal Stage	Approximate Location of Sheen Observed	Description of Sheen Observed
1/31/2017	No sheens observed at mid tide			
2/27/2017	9:00	Mid-Low	Within Boom near CHES RW-3	Streaks of sheen
3/24/2017	No sheens observed at high tide			
4/28/2017	No sheens observed at high tide			
5/5/2017	No sheens observed at high tide			
6/30/2017	No sheens observed at high tide			
7/27/2017	No sheens observed at high tide			
8/1/2017	16:00	High	Within Boom near CHES RW-3	Some plates of sheen
9/1/2017	12:50	Mid	Within Boom near CHES RW-3	Dull streaks of sheen
9/29/2017	11:00	Mid-High	Within Boom near CHES RW-3	Some streaks of sheen
10/24/2017	No sheens observed at high tide			
11/21/2017	No sheens observed at high tide			
12/21/2017	No sheens observed at low tide			

1. This table shows observations that were made along the Site shoreline. Observations were made least monthly.
2. Observations made on 9/22/2011 were made before containment boom was repaired. Boom was repaired on 10/28/2011.
3. Boom was repaired and the absorbent sausage boom was replaced on 8/2/2012.
4. Boom was repaired and sections of the absorbent sausage boom was replaced on 11/20/12.
5. Boom was repaired and sections of the absorbent sausage boom was replaced on 2/12/2013.
6. A water line directly proximate to the Providence River at the LNG facility unexpectedly failed on May 31, 2013. This water line provided fire protection for the LNG facility. Immediate response actions included deploying additional absorbent booms, repairing a rip-rap slope and temporarily repairing the line for fire protection. The water line was replaced in the fall of 2013. Additional boom was deployed on May 31, 2013 and June 3, 2013 after additional sheens were observed outside the original boom configuration.
7. Boom was repaired and sections of the absorbent sausage boom was replaced on 10/4/2013.
8. Absorbent boom replaced 3/20/14
9. Absorbent boom replaced 11/13/14
10. Hard Boom and absorbent boom was replaced on 4/9/15
11. Absorbent boom replaced 11/17/15
12. Absorbent boom replaced 3/3/16.
13. Absorbent boom replaced 7/13/16
14. Absorbent boom replaced 2/23/17.
15. Absorbent boom replaced 6/7/17.
16. Absorbent boom replaced 10/6/17.

TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	January 2011								July 2011							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP	NP																
CNG	GZ-301D	17.74	17.33	17.74	Roadbox	Deep	5/30/2014	30.11	20 - 30	NP	NP																
CNG	GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP	NP																
CNG	GZ-302D	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP	NP																
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow	6/8/1994	15.89	6.5 - 16.5	NP	NP									-	6.45	-	15.4	5.37	NP	NP	5.37
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace	-	9.95	trace	17.65	1.49	NP	trace	1.49	-	8.51	trace	17.75	2.93	NP	trace	2.93
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP									-	6.72	-	14.95	6.32	NP	NP	6.32
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP	-	6.84	-	15.00	4.77	NP	NP	4.77	-	6.27	-	14.95	5.34	NP	NP	5.34
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP									-	8.4	-	15.28	4.35	NP	NP	4.35
NG	RCA-15	NS	14.06	NS	Standpipe	Shallow	12/8/1994	15.97	4 - 14	NP	NP									-	8.11	-	17.95	5.95	NP	NP	5.95
NG	RCA-17	NS	13.44	NS	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP									-	7.33	-	14.75	6.11	NP	NP	6.11
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	NP									-	4.54	-	10.9	5.79	NP	NP	5.79
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP									-	5.42	-	9.15	6.54	NP	NP	6.54
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP	-	8.18	-	14	4.75	NP	NP	4.75	-	7.74	-	13.95	5.19	NP	NP	5.19
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP	NP	-	9.75	-	14.9	3.98	NP	NP	3.98	-	8.89	-	14.85	4.84	NP	NP	4.84
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP	trace	12.35	-	17.04	6.75	trace	NP	6.75	trace	11.7	-	17.04	7.40	trace	NP	7.40
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP									-	8.93	-	16.92	6.42	NP	NP	6.42
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP	-	9.05	-	16.55	4.60	NP	NP	4.60	-	8.51	-	16.55	5.14	NP	NP	5.14
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP									8.54	8.55	-	17.67	4.47	0.01	NP	4.48
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP									7.88	7.89	-	17.25	4.91	0.01	NP	4.91
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP									-	6.57	-	10.42	6.37	NP	NP	6.37
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP									-	9.85	-	16.24	4.42	NP	NP	4.42
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP									-	4.68	-	9.52	4.99	NP	NP	4.99
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP									-	5.21	-	11.5	8.85	NP	NP	8.85
NG	GZ-303S	13.78	13.28	13.78	Roadbox	Shallow	5/28/2014	15.70	5 - 15	NP	NP																
NG	GZ-303D	13.75	13.13	13.75	Roadbox	Deep	6/3/2014	30.32	20 - 30	NP	NP																
NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP	NP																
NG	GZ-305S	11.84	11.64	11.84	Roadbox	Shallow	5/22/2014	14.35	5 - 15	NP	NP																
NG	GZ-306S	11.90	11.49	11.90	Roadbox	Shallow	5/22/2014	15.31	5 - 15	NP	NP																
NG	GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.08	NP																
NG	GZ-308S	9.71	8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP																
NG	GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP	NP																
NG	GZ-311D	13.04	12.82	10.03	Standpipe	Deep	5/21/2014	29.91	20 - 30	NP	NP																
NG	GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP	NP																
NG	GZ-312D	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP																
NG	GZ-313D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP																
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP																
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP																
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP	NP																
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP																

Notes

Well is located in the Natural Gas Regulator portion of the Property
Well is located at the LNG Facility
Well is located in the CNG Fueling Station portion of the Property
Elevations are relative to NAVD88
NP - Indicates No Product observed.
NS - Not Surveyed
Blanks indicate no measurement collected on that particular day.
Potentiometric elevations for wells exhibiting LNAPL include 0.85 correction factor.
Note 1 - The readings reported from monitoring wells GZ-401 and GZ-403 in the October 2014 column were collected on November 3, 2015.

TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	January 2011								July 2011							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP									-	10.04	-	13.33	2.23	NP	NP	2.23
LNG	RCA-6	10.90	10.66	10.90	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP									-	10.22	-	17.2	0.44	NP	NP	0.44
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP									-	8.16	-	10.95	4.79	NP	NP	4.79
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP									10.07	13.65	-	13.75	0.07	3.58	NP	3.11
LNG	RCA-22	NM	12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP	NP	-	9.92	-	13.05	3.00	NP	NP	3.00	-	9.08	-	13	3.84	NP	NP	3.84
LNG	RCA-28	NS	15.38	13.01	Standpipe	Shallow	1/17/1995	15.43	5 - 15	NP	NP	-	12.45	-	17.65	2.93	NP	NP	2.93	-	11.65	-	17.65	3.73	NP	NP	3.73
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP									10.87	10.95	-	14.79	2.50	0.08	NP	2.57
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP									-	8.69	-	15.98	3.47	NP	NP	3.47
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP									-	7.44	-	13.12	2.23	NP	NP	2.23
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP									-	9.29	-	13.55	5.80	NP	NP	5.80
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP	NP									-	10.49	-	14.05	0.02	NP	NP	0.02
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP	NP									-	7.86	-	16.8	1.50	NP	NP	1.50
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP	NP									-	8.81	-	14.6	5.05	NP	NP	5.05
LNG	RCA-40	12.76	12.24	10.47	Standpipe	Shallow	5/3/1996	15.15	4 - 14	trace - 0.04	NP									-	10.01	-	16.75	2.23	NP	NP	2.23
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP																
LNG	VHB-20	15.15	14.98	13.01	Standpipe	Shallow	1/22/2002	15.57	6 - 16	NP	NP									-	8.57	-	17	6.41	NP	NP	6.41
LNG	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP									-	11.35	-	17.9	2.95	NP	NP	2.95
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP									10.92	10.94	-	12.35	2.14	0.02	NP	2.16
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP									-	11.6	-	13.8	2.72	NP	NP	2.72
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP									-	5.11	-	8.46	NS	NP	NP	NS
LNG	ESS RW-2	NS	NS	NS	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP									-	7.62	-	11.07	NS	NP	NP	NS
LNG	ESS RW-3	16.03	16.03	12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP	NP									-	12.76	-	16.8	3.27	NP	NP	3.27
LNG	ESS RW-4	15.78	15.78	12.69	Recovery Well	Shallow	2002	12.06	Unknown	NP	NP									-	12.53	-	14.95	3.25	NP	NP	3.25
LNG	ESS RW-5	16.14	16.14	12.86	Recovery Well	Shallow	2002	13.85	Unknown	NP	NP									-	12.82	-	17	3.32	NP	NP	3.32
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP	NP									-	14.27	-	17.09	3.25	NP	NP	3.25
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP	NP																
LNG	GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP	NP																
LNG	GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP	NP									-	8.75	-	17.3	4.08	NP	NP	4.08
LNG	GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP	NP									-	6.61	-	17.75	5.00	NP	NP	5.00
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP																
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP																
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP																
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP																
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP																

Notes

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Blanks indicate no measurement collected on that particular day.
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Note 1 - The readings reported from monitoring wells GZ-401 and GZ-403 in the October 2014 column were collected on November 3, 2015.

TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	August 2011								February 2012							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP	NP																
CNG	GZ-301D	17.74	17.33	17.74	Roadbox	Deep	5/30/2014	30.11	20 - 30	NP	NP																
CNG	GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP	NP																
CNG	GZ-302D	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP	NP																
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow	6/8/1994	15.89	6.5 - 16.5	NP	NP	-	6.66	-	15.4	5.16	NP	NP	5.16	-	6.33	-	15.5	5.49	NP	NP	5.49
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace	-	8.45	trace	17.75	2.99	NP	trace	2.99	-	9.4	trace	17.55	2.04	NP	trace	2.04
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP	-	6.92	-	14.95	6.12	NP	NP	6.12	-	6.91	-	15.05	6.13	NP	NP	6.13
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP	-	6.92	-	14.95	4.69	NP	NP	4.69	-	5.88	-	15.07	5.73	NP	NP	5.73
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP	-	9.91	-	15.28	2.84	NP	NP	2.84	-	8.81	-	15.35	3.94	NP	NP	3.94
NG	RCA-15	NS	14.06	NS	Standpipe	Shallow	12/8/1994	15.97	4 - 14	NP	NP	-	8.36	-	17.95	5.70	NP	NP	5.70	-	8.36	-	18.02	5.70	NP	NP	5.70
NG	RCA-17	NS	13.44	NS	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP	-	7.96	-	14.75	5.48	NP	NP	5.48	-	7.37	-	14.86	6.07	NP	NP	6.07
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	NP	-	7.56	-	10.9	2.77	NP	NP	2.77	-	4.54	-	10.98	5.79	NP	NP	5.79
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP	trace	6.41	-	9.15	5.55	trace	NP	5.55	-	5.36	-	9.38	6.60	NP	NP	6.60
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP	-	8.26	-	13.95	4.67	NP	NP	4.67	-	7.38	-	13.75	5.55	NP	NP	5.55
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP	NP	-	9.3	-	14.85	4.43	NP	NP	4.43	-	9.29	-	14.98	4.44	NP	NP	4.44
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP	12.22	12.23	-	17.04	6.87	0.01	NP	6.88	trace	11.83	-	17.16	7.27	trace	NP	7.27
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP	-	9.16	-	16.92	6.19	NP	NP	6.19	-	9.15	-	17.03	6.20	NP	NP	6.20
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP	-	8.99	-	16.55	4.66	NP	NP	4.66	-	8.4	-	16.63	5.25	NP	NP	5.25
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP	-	9.06	-	17.67	3.96	NP	NP	3.96	trace	7.94	-	17.31	5.08	trace	NP	5.08
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP	8.50	8.55	-	17.25	4.25	0.05	NP	4.29	trace	8.8	-	17.85	4.00	trace	NP	4.00
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP	-	7.22	-	10.42	5.72	NP	NP	5.72	-	6.3	-	10.55	6.64	NP	NP	6.64
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP	-	10.41	-	10.24	3.86	NP	NP	3.86	trace	10.24	-	10.35	4.03	trace	NP	4.03
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP	-	7.68	-	9.52	1.99	NP	NP	1.99	-	4.6	-	9.55	5.07	NP	NP	5.07
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP	-	5.74	-	11.5	8.32	NP	NP	8.32	-	5.4	-	11.6	8.66	NP	NP	8.66
NG	GZ-303S	13.78	13.28	13.78	Roadbox	Shallow	5/28/2014	15.70	5 - 15	NP	NP																
NG	GZ-303D	13.75	13.13	13.75	Roadbox	Deep	6/3/2014	30.32	20 - 30	NP	NP																
NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP	NP																
NG	GZ-305S	11.84	11.64	11.84	Roadbox	Shallow	5/22/2014	14.35	5 - 15	NP	NP																
NG	GZ-306S	11.90	11.49	11.90	Roadbox	Shallow	5/22/2014	15.31	5 - 15	NP	NP																
NG	GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.08	NP																
NG	GZ-308S	9.71	8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP																
NG	GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP	NP																
NG	GZ-311D	13.04	12.82	10.03	Standpipe	Deep	5/21/2014	29.91	20 - 30	NP	NP																
NG	GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP	NP																
NG	GZ-312D	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP																
NG	GZ-313D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP																
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP																
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP																
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP	NP																
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP																

Notes

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Potentiometric elevations for wells exhibiting LNAPL include 0.85 correction factor.
Note 1 - The readings reported from monitoring wells GZ-401 and GZ-403 in the October 2014 column were collected on November 3, 2015.

TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	August 2011								February 2012							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP	-	10.33	-	13.33	1.94	NP	NP	1.94	-	10.75	-	13.45	1.52	NP	NP	1.52
LNG	RCA-6	10.90	10.66	10.90	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP	-	10.55	-	17.2	0.11	NP	NP	0.11	-	11.2	-	17.27	-0.54	NP	NP	-0.54
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP	-	9.09	-	10.95	3.86	NP	NP	3.86	-	8.85	-	11.07	4.10	NP	NP	4.10
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP	10.72	13.66	-	13.75	0.06	2.94	NP	2.56	10.95	13.74	-	13.94	-0.02	2.79	NP	2.35
LNG	RCA-22	NM	12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP	NP	-	9.52	-	13	3.40	NP	NP	3.40	-	9.48	-	13.05	3.44	NP	NP	3.44
LNG	RCA-28	NS	15.38	13.01	Standpipe	Shallow	1/17/1995	15.43	5 - 15	NP	NP	-	12	-	17.65	3.38	NP	NP	3.38	-	12.02	-	17.7	3.36	NP	NP	3.36
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP	trace	11.31	-	14.79	2.14	trace	NP	2.14	trace	11.73	-	14.79	1.72	trace	NP	1.72
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP	-	9.64	-	15.98	2.52	NP	NP	2.52	-	9.75	-	16.05	2.41	NP	NP	2.41
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP	-	7.74	-	13.12	1.93	NP	NP	1.93	-	8.37	-	13.26	1.30	NP	NP	1.30
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP	-	11.59	-	13.55	3.50	NP	NP	3.50	-	8.91	-	13.61	6.18	NP	NP	6.18
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP	NP	-	11.82	-	14.05	-1.31	NP	NP	-1.31	-	12.06	-	14.11	-1.55	NP	NP	-1.55
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP	NP	-	8.19	-	16.8	1.17	NP	NP	1.17	-	8.78	-	16.64	0.58	NP	NP	0.58
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP	NP	-	9.65	-	14.6	4.21	NP	NP	4.21	-	9.45	-	14.7	4.41	NP	NP	4.41
LNG	RCA-40	12.76	12.24	10.47	Standpipe	Shallow	5/3/1996	15.15	4 - 14	trace - 0.04	NP	-	10.37	-	16.75	1.87	NP	NP	1.87	trace	10.78	-	16.9	1.46	trace	NP	1.46
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP	-	10.47	-	15.90	2.25	NP	NP	2.25	-	10.73	-	15.86	1.99	NP	NP	1.99
LNG	VHB-20	15.15	14.98	13.01	Standpipe	Shallow	1/22/2002	15.57	6 - 16	NP	NP	-	8.91	-	17	6.07	NP	NP	6.07	-	8.85	-	17.17	6.13	NP	NP	6.13
LNG	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP	-	12.25	-	17.9	2.05	NP	NP	2.05	-	12.35	-	18	1.95	NP	NP	1.95
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP	11.27	11.3	-	12.35	1.78	0.03	NP	1.81	11.67	11.68	-	12.45	1.40	0.01	NP	1.41
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP	-	11.9	-	13.8	2.42	NP	NP	2.42	-	12.3	-	13.8	2.02	NP	NP	2.02
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP	-	6.71	-	8.46	NS	NP	NP	NS	-	5.41	-	8.6	NS	NP	NP	NS
LNG	ESS RW-2	NS	NS	NS	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP	-	8.24	-	11.07	NS	NP	NP	NS	-	8.35	-	11.2	NS	NP	NP	NS
LNG	ESS RW-3	16.03	16.03	12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP	NP	-	13.25	-	16.8	2.78	NP	NP	2.78	-	13.46	-	16.81	2.57	NP	NP	2.57
LNG	ESS RW-4	15.78	15.78	12.69	Recovery Well	Shallow	2002	12.06	Unknown	NP	NP	-	13.02	-	14.95	2.76	NP	NP	2.76	-	13.25	-	15.04	2.53	NP	NP	2.53
LNG	ESS RW-5	16.14	16.14	12.86	Recovery Well	Shallow	2002	13.85	Unknown	NP	NP	-	13.31	-	17	2.83	NP	NP	2.83	-	13.52	-	17.06	2.62	NP	NP	2.62
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP	NP	-	14.77	-	17.09	2.75	NP	NP	2.75	-	14.99	-	17.12	2.53	NP	NP	2.53
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP	NP																
LNG	GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP	NP									-	9.62	-	20.04	-0.09	NP	NP	-0.09
LNG	GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP	NP	-	9.4	-	17.3	3.43	NP	NP	3.43	-	9.19	-	17.41	3.64	NP	NP	3.64
LNG	GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP	NP	-	7.65	-	17.75	3.96	NP	NP	3.96	-	6.88	-	17.65	4.73	NP	NP	4.73
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP																
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP																
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP																
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP																
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP																

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642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	July 2012								February 2013							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP	NP																
CNG	GZ-301D	17.74	17.33	17.74	Roadbox	Deep	5/30/2014	30.11	20 - 30	NP	NP																
CNG	GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP	NP																
CNG	GZ-302D	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP	NP																
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow	6/8/1994	15.89	6.5 - 16.5	NP	NP	-	6.41	-	15.41	5.41	NP	NP	5.41	-	6.69	-	15.4	5.13	NP	NP	5.13
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace	-	7.91	trace	17.55	3.53	NP	trace	3.53	-	9.25	trace	17.65	2.19	NP	trace	2.19
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP	-	6.95	-	14.95	6.09	NP	NP	6.09	-	6.95	-	15	6.09	NP	NP	6.09
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP	-	7.21	-	15.07	4.40	NP	NP	4.40	-	5.81	-	15.05	5.80	NP	NP	5.80
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP	-	9.03	-	15.2	3.72	NP	NP	3.72	-	8.71	-	15.3	4.04	NP	NP	4.04
NG	RCA-15	NS	14.06	NS	Standpipe	Shallow	12/8/1994	15.97	4 - 14	NP	NP	-	8.32	-	18.05	5.74	NP	NP	5.74	-	8.4	-	18	5.66	NP	NP	5.66
NG	RCA-17	NS	13.44	NS	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP	-	7.38	-	14.8	6.06	NP	NP	6.06	-	6.87	-	14.85	6.57	NP	NP	6.57
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	NP	-	4.81	-	10.85	5.52	NP	NP	5.52	-	4.88	-	10.88	5.45	NP	NP	5.45
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP	-	6.49	-	9.11	5.47	NP	NP	5.47	-	4.97	-	9.4	6.99	NP	NP	6.99
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP	-	8.61	-	12.7	4.32	NP	NP	4.32	-	7.38	-	12.25	5.55	NP	NP	5.55
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP	NP	-	9.46	-	14.91	4.27	NP	NP	4.27	-	9.38	-	14.9	4.35	NP	NP	4.35
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP	12.45	12.47	-	17.16	6.63	0.02	NP	6.65	-	12.81	-	17.15	6.29	NP	NP	6.29
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP	-	9.21	-	17	6.14	NP	NP	6.14	-	9.23	-	17	6.12	NP	NP	6.12
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP	9.31	9.32	-	16.63	4.33	0.01	NP	4.33	8.56	8.57	-	17.3	5.08	0.01	NP	5.08
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP	8.82	8.86	-	17.31	4.16	0.04	NP	4.19	-	8.88	-	17.8	4.14	NP	NP	4.14
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP	-	9.44	-	17.85	3.36	NP	NP	3.36	8.21	8.22	-	17.8	4.58	0.01	NP	4.58
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP	-	7.89	-	10.5	5.05	NP	NP	5.05	-	6.86	-	10.3	6.08	NP	NP	6.08
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP	-	10.57	-	10.61	3.70	NP	NP	3.70	trace	10.42	-	16.3	3.85	trace	NP	3.85
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP	-	5.75	-	9.14	3.92	NP	NP	3.92	-	4.15	-	9.35	5.52	NP	NP	5.52
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP	-	5.9	-	11.6	8.16	NP	NP	8.16	-	5.25	-	10	8.81	NP	NP	8.81
NG	GZ-303S	13.78	13.28	13.78	Roadbox	Shallow	5/28/2014	15.70	5 - 15	NP	NP																
NG	GZ-303D	13.75	13.13	13.75	Roadbox	Deep	6/3/2014	30.32	20 - 30	NP	NP																
NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP	NP																
NG	GZ-305S	11.84	11.64	11.84	Roadbox	Shallow	5/22/2014	14.35	5 - 15	NP	NP																
NG	GZ-306S	11.90	11.49	11.90	Roadbox	Shallow	5/22/2014	15.31	5 - 15	NP	NP																
NG	GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.08	NP																
NG	GZ-308S	9.71	8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP																
NG	GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP	NP																
NG	GZ-311D	13.04	12.82	10.03	Standpipe	Deep	5/21/2014	29.91	20 - 30	NP	NP																
NG	GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP	NP																
NG	GZ-312D	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP																
NG	GZ-313D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP																
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP																
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP																
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP	NP																
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP																

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		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP	-	10.44	-	13.45	1.83	NP	NP	1.83	-	10.59	-	13.55	1.68	NP	NP	1.68
LNG	RCA-6	10.90	10.66	10.90	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP	-	10.65	-	17.2	0.01	NP	NP	0.01	-	11.21	-	17.26	-0.55	NP	NP	-0.55
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP	-	9.1	-	11.07	3.85	NP	NP	3.85	-	8.83	-	14.35	4.12	NP	NP	4.12
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP	11.17	12.82	-	14.35	0.90	1.65	NP	2.30	11.41	12.85	-	14.35	0.87	1.44	NP	2.10
LNG	RCA-22	NM	12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP	NP	-	9.69	-	13.05	3.23	NP	NP	3.23	-	9.77	-	13.2	3.15	NP	NP	3.15
LNG	RCA-28	NS	15.38	13.01	Standpipe	Shallow	1/17/1995	15.43	5 - 15	NP	NP	-	12.08	-	17.7	3.30	NP	NP	3.30	-	12.28	-	17.75	3.10	NP	NP	3.10
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP	11.50	11.61	-	14.45	1.84	0.11	NP	1.84	trace	11.98	-	14.45	1.47	trace	NP	1.47
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP	-	10.75	-	16.01	1.41	NP	NP	1.41	-	9.98	-	12.9	2.18	NP	NP	2.18
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP	-	8.08	-	13.2	1.59	NP	NP	1.59	-	8.51	-	13.3	1.16	NP	NP	1.16
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP	-	7.1	-	13.55	7.99	NP	NP	7.99	-	6.75	-	13.55	8.34	NP	NP	8.34
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP	NP	-	10.24	-	14.1	0.27	NP	NP	0.27	-	11.62	-	14.07	-1.11	NP	NP	-1.11
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP	NP	-	8.48	-	16.7	0.88	NP	NP	0.88	-	9.05	-	16.7	0.31	NP	NP	0.31
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP	NP	-	9.85	-	14.65	4.01	NP	NP	4.01	-	9.86	-	14.75	4.00	NP	NP	4.00
LNG	RCA-40	12.76	12.24	10.47	Standpipe	Shallow	5/3/1996	15.15	4 - 14	trace - 0.04	NP	trace	10.47	-	16.8	1.77	trace	NP	1.77	trace	10.85	-	16.8	1.39	trace	NP	1.39
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP	-	10.5	-	15.84	2.22	NP	NP	2.22	-	10.71	-	15.85	2.01	NP	NP	2.01
LNG	VHB-20	15.15	14.98	13.01	Standpipe	Shallow	1/22/2002	15.57	6 - 16	NP	NP	-	8.91	-	17.05	6.07	NP	NP	6.07	-	9.12	-	17.2	5.86	NP	NP	5.86
LNG	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP	-	12.31	-	17.92	1.99	NP	NP	1.99	-	12.71	-	17.9	1.59	NP	NP	1.59
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP	trace	11.4	-	12.4	1.68	trace	NP	1.68	trace	11.77	-	12.5	1.31	trace	NP	1.31
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP	-	12.08	-	13.8	2.24	NP	NP	2.24	-	12.4	-	13.8	1.92	NP	NP	1.92
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP	-	6.59	-	8.46	NS	NP	NP	NS	-	5.27	-	8.55	NS	NP	NP	NS
LNG	ESS RW-2	NS	NS	NS	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP	-	8.18	-	11.1	NS	NP	NP	NS	-	8.39	-	11.2	NS	NP	NP	NS
LNG	ESS RW-3	16.03	16.03	12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP	NP	-	13.36	-	16.8	2.67	NP	NP	2.67	-	13.68	-	16.85	2.35	NP	NP	2.35
LNG	ESS RW-4	15.78	15.78	12.69	Recovery Well	Shallow	2002	12.06	Unknown	NP	NP	-	13.14	-	15	2.64	NP	NP	2.64	-	13.44	-	15.05	2.34	NP	NP	2.34
LNG	ESS RW-5	16.14	16.14	12.86	Recovery Well	Shallow	2002	13.85	Unknown	NP	NP	-	13.44	-	17.05	2.70	NP	NP	2.70	-	13.74	-	17.05	2.40	NP	NP	2.40
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP	NP	-	14.86	-	17.1	2.66	NP	NP	2.66	-	15.16	-	17.15	2.36	NP	NP	2.36
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP	NP																
LNG	GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP	NP	-	7.7	-	20.05	1.83	NP	NP	1.83	-	8.98	-	20.10	0.55	NP	NP	0.55
LNG	GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP	NP	-	9.49	-	17.43	3.34	NP	NP	3.34	-	9.62	-	17.42	3.21	NP	NP	3.21
LNG	GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP	NP	-	7.72	-	17.68	3.89	NP	NP	3.89	-	7.22	-	17.65	4.39	NP	NP	4.39
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP																
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP																
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP																
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP																
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP																

Notes

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Blanks indicate no measurement collected on that particular day.
Potentiometric elevations for wells exhibiting LNAPL include 0.85 correction factor.
Note 1 - The readings reported from monitoring wells GZ-401 and GZ-403 in the October 2014 column were collected on November 3, 2015.

TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	November 2013								June 2014							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP	NP									-	9.82	-	14.7	7.51	NP	NP	7.51
CNG	GZ-301D	17.74	17.33	17.74	Roadbox	Deep	5/30/2014	30.11	20 - 30	NP	NP									-	10.87	-	29.7	6.46	NP	NP	6.46
CNG	GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP	NP									-	9.42	-	14.7	7.25	NP	NP	7.25
CNG	GZ-302D	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP	NP									-	9.35	-	29.5	7.24	NP	NP	7.24
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow	6/8/1994	15.89	6.5 - 16.5	NP	NP	-	7.19	-	15.45	4.63	NP	NP	4.63	-	6.32	-	15.5	5.50	NP	NP	5.50
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace	-	9.44	trace	17.7	2.00	NP	trace	2.00	-	8.82	Trace	17.8	2.62	NP	Trace	2.62
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP	-	7.41	-	14.72	5.63	NP	NP	5.63	-	6.44	-	15	6.60	NP	NP	6.60
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP	Well pinched - can not gauge								Well pinched - able to sample - can not gauge							
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP	-	9.76	-	15.35	2.99	NP	NP	2.99	-	8.42	-	15.3	4.33	NP	NP	4.33
NG	RCA-15	NS	14.06	NS	Standpipe	Shallow	12/8/1994	15.97	4 - 14	NP	NP	-	8.77	-	18	5.29	NP	NP	5.29	-	7.92	-	17.97	6.14	NP	NP	6.14
NG	RCA-17	NS	13.44	NS	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP	-	8.2	-	14.9	5.24	NP	NP	5.24	-	7.07	-	14.8	6.37	NP	NP	6.37
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	NP	-	4.81	-	10.9	5.52	NP	NP	5.52	-	4.55	-	11.5	5.78	NP	NP	5.78
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP	-	6.54	-	9.5	5.42	NP	NP	5.42	-	5.01	-	10.1	6.95	NP	NP	6.95
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP	-	9.48	-	13.8	3.45	NP	NP	3.45	-	8.08	-	12.45	4.85	NP	NP	4.85
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP	NP	-	10.07	-	15	3.66	NP	NP	3.66	-	8.94	-	15.1	4.79	NP	NP	4.79
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP	13.24	13.25	-	15.2	5.85	0.01	NP	5.86	Trace	12.08	-	18	7.02	Trace	NP	6.08
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP	-	9.62	-	16.74	5.73	NP	NP	5.73	-	8.91	-	17	6.44	NP	NP	6.44
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP	trace	10.26	-	16.6	3.39	trace	NP	3.39	-	8.86	-	18.5	4.79	NP	NP	4.79
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP	10.35	10.36	-	17.8	2.66	0.01	NP	2.67	Trace	8.51	-	17.3	4.51	Trace	NP	4.51
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP	-	9.86	-	17.3	2.94	NP	NP	2.94	9.22	9.25	-	17.8	3.55	0.03	NP	3.57
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP	-	8.97	-	10.5	3.97	NP	NP	3.97	-	7.13	-	11.3	5.81	NP	NP	5.81
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP	-	11.22	-	16.2	3.05	NP	NP	3.05	-	9.98	-	16.3	4.29	NP	NP	4.29
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP	-	5.78	-	9.5	3.89	NP	NP	3.89	-	4.26	-	9.3	5.41	NP	NP	5.41
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP									-	6.74	-	13.75	7.32	NP	NP	7.32
NG	GZ-303S	13.78	13.28	13.78	Roadbox	Shallow	5/28/2014	15.70	5 - 15	NP	NP									-	6.55	-	15.2	6.73	NP	NP	6.73
NG	GZ-303D	13.75	13.13	13.75	Roadbox	Deep	6/3/2014	30.32	20 - 30	NP	NP									-	6.18	-	29.7	6.95	NP	NP	6.95
NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP	NP									-	6.55	-	29.7	5.40	NP	NP	5.40
NG	GZ-305S	11.84	11.64	11.84	Roadbox	Shallow	5/22/2014	14.35	5 - 15	NP	NP									-	6.8	-	14.15	4.84	NP	NP	4.84
NG	GZ-306S	11.90	11.49	11.90	Roadbox	Shallow	5/22/2014	15.31	5 - 15	NP	NP									-	6.59	-	14.9	4.90	NP	NP	4.90
NG	GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.08	NP									-	4.73	-	14.15	5.45	NP	NP	5.45
NG	GZ-308S	9.71	8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP									-	1.79	-	11.58	7.17	NP	NP	7.17
NG	GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP	NP									-	4.44	-	29.9	5.39	NP	NP	5.39
NG	GZ-311D	13.04	12.82	10.03	Standpipe	Deep	5/21/2014	29.91	20 - 30	NP	NP									-	7.07	-	32.7	5.75	NP	NP	5.75
NG	GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP	NP									-	5.82	-	15.12	4.76	NP	NP	4.76
NG	GZ-312D	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP									-	5.07	-	32.75	5.72	NP	NP	5.72
NG	GZ-313D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP									-	8.17	-	38.2	3.47	NP	NP	3.47
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP									-	9.12	-	36.5	4.36	NP	NP	4.36
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP									-	11.8	-	33.1	7.14	NP	NP	7.14
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP	NP																
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP																

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642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	November 2013								June 2014							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP	-	10.77	-	13.45	1.50	NP	NP	1.50	-	10.39	-	17.4	1.88	NP	NP	1.88
LNG	RCA-6	10.90	10.66	10.90	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP	-	10.61	-	17.2	0.05	NP	NP	0.05	Well covered with gravel - can not gauge							
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP	-	10.27	-	11.03	2.68	NP	NP	2.68	-	9.09	-	14.2	3.86	NP	NP	3.86
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP	12.26	14.17	-	14.35	-0.45	1.91	NP	1.17	11.04	11.95	-	14.63	1.77	0.91	NP	2.54
LNG	RCA-22	NM	12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP	NP	-	10.3	-	13.05	2.62	NP	NP	2.62	-	9.75	-	13	3.17	NP	NP	3.17
LNG	RCA-28	NS	15.38	13.01	Standpipe	Shallow	1/17/1995	15.43	5 - 15	NP	NP	-	12.46	-	17.48	2.92	NP	NP	2.92	-	11.84	-	17.8	3.54	NP	NP	3.54
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP	-	11.79	-	14.35	1.66	NP	NP	1.66	11.38	11.55	-	14.95	1.90	0.17	NP	2.04
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP	-	10.39	-	12.8	1.77	NP	NP	1.77	-	9.16	-	12.98	3.00	NP	NP	3.00
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP	-	8.11	-	13.2	1.56	NP	NP	1.56	-	7.75	-	13.32	1.92	NP	NP	1.92
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP	-	7.01	-	12.81	8.08	NP	NP	8.08	-	10.13	-	13.1	4.96	NP	NP	4.96
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP	NP	-	10.28	-	11.8	0.23	NP	NP	0.23	-	12.15	-	13.16	-1.64	NP	NP	-1.64
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP	NP	-	9.25	-	16.5	0.11	NP	NP	0.11	-	8.7	-	17.65	0.66	NP	NP	0.66
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP	NP	-	10.8	-	14.64	3.06	NP	NP	3.06	-	9.42	-	14.75	4.44	NP	NP	4.44
LNG	RCA-40	12.76	12.24	10.47	Standpipe	Shallow	5/3/1996	15.15	4 - 14	trace - 0.04	NP	-	10.7	-	16.85	1.54	NP	NP	1.54	-	10.4	-	16.92	1.84	NP	NP	1.84
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP	-	10.9	-	15.86	1.82	NP	NP	1.82	-	10.45	-	15.95	2.27	NP	NP	2.27
LNG	VHB-20	15.15	14.98	13.01	Standpipe	Shallow	1/22/2002	15.57	6 - 16	NP	NP	-	9.26	-	16.88	5.72	NP	NP	5.72	-	8.52	-	17.54	6.46	NP	NP	6.46
LNG	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP	-	12.8	-	17.92	1.50	NP	NP	1.50	-	11.98	-	17.9	2.32	NP	NP	2.32
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP	11.60	11.61	-	12.4	1.47	0.01	NP	1.48	Trace	11.33	-	12.56	1.75	NP	NP	1.75
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP	-	12.25	-	13.7	2.07	NP	NP	2.07	-	12.59	-	14.5	1.73	NP	NP	1.73
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP	-	7.35	-	8.45	NS	NP	NP	NS	-	4.94	-	8.7	NS	NP	NP	NS
LNG	ESS RW-2	NS	NS	NS	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP	-	8.68	-	11.1	NS	NP	NP	NS	-	7.9	-	11.32	NS	NP	NP	NS
LNG	ESS RW-3	16.03	16.03	12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP	NP	-	13.94	-	16.8	2.09	NP	NP	2.09	-	13.33	-	16.98	2.70	NP	NP	2.70
LNG	ESS RW-4	15.78	15.78	12.69	Recovery Well	Shallow	2002	12.06	Unknown	NP	NP	-	13.66	-	15	2.12	NP	NP	2.12	-	13.1	-	15.15	2.68	NP	NP	2.68
LNG	ESS RW-5	16.14	16.14	12.86	Recovery Well	Shallow	2002	13.85	Unknown	NP	NP	-	14.01	-	17.03	2.13	NP	NP	2.13	-	13.35	-	17.12	2.79	NP	NP	2.79
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP	NP	-	15.45	-	17.1	2.07	NP	NP	2.07	-	14.81	-	17.2	2.71	NP	NP	2.71
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP	NP																
LNG	GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP	NP	-	8.1	-	20.08	1.43	NP	NP	1.43	-	7.79	-	20.08	1.74	NP	NP	1.74
LNG	GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP	NP	-	10.21	-	17.53	2.62	NP	NP	2.62	-	9.27	-	17.44	3.56	NP	NP	3.56
LNG	GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP	NP	-	8.67	-	17.65	2.94	NP	NP	2.94	-	7.19	-	17.72	4.42	NP	NP	4.42
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP																
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP									-	11.91	-	21.94	2.28	NP	NP	2.28
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP									-	11.83	-	37.00	2.28	NP	NP	2.28
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP									-	11.13	-	33.05	1.80	NP	NP	1.80
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP									-	9.86	-	32.23	5.04	NP	NP	5.04

Notes

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TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	July 2, 2014								July 23, 2014							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP	NP	-	10.06	-	14.45	7.27	NP	NP	7.27	-	10.1	-	14.44	7.23	NP	NP	7.23
CNG	GZ-301D	17.74	17.33	17.74	Roadbox	Deep	5/30/2014	30.11	20 - 30	NP	NP	-	10.05	-	29.6	7.28	NP	NP	7.28	-	10.12	-	29.6	7.21	NP	NP	7.21
CNG	GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP	NP	-	9.59	-	14.56	7.08	NP	NP	7.08	-	9.66	-	14.55	7.01	NP	NP	7.01
CNG	GZ-302D	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP	NP	-	9.48	-	29.44	7.11	NP	NP	7.11	-	9.57	-	29.41	7.02	NP	NP	7.02
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow	6/8/1994	15.89	6.5 - 16.5	NP	NP	-	6.3	-	15.45	5.52	NP	NP	5.52	-	6.25	-	15.45	5.57	NP	NP	5.57
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace	-	8.91	Trace	18.11	2.53	NP	Trace	2.53	-	9.49	Trace	17.91	1.95	NP	Trace	1.95
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP																
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP																
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP																
NG	RCA-15	NS	14.06	NS	Standpipe	Shallow	12/8/1994	15.97	4 - 14	NP	NP																
NG	RCA-17	NS	13.44	NS	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP																
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	NP	-	4.65	-	11.35	5.68	NP	NP	5.68	-	4.65	-	11.31	5.68	NP	NP	5.68
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP	-	6.27	-	10.2	5.69	NP	NP	5.69	-	6.15	-	10.13	5.81	NP	NP	5.81
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP																
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP	NP																
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP	Trace	12.41	-	18	6.69	Trace	NP	6.69	-	12.66	-	17.94	6.44	NP	NP	6.44
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP																
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP	Trace	9.07	-	18.5	4.58	Trace	NP	4.58	9.41	9.49	-	18.5	4.16	0.08	NP	4.22
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP																
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP																
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP																
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP																
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP	-	5.54	-	9.35	4.13	NP	NP	4.13	-	5.42	-	9.3	4.25	NP	NP	4.25
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP	-	7.06	-	13.74	7.00	NP	NP	7.00	-	7.41	-	14.00	6.65	NP	NP	6.65
NG	GZ-303S	13.78	13.28	13.78	Roadbox	Shallow	5/28/2014	15.70	5 - 15	NP	NP	-	6.55	-	14.91	6.73	NP	NP	6.73	-	6.62	-	14.91	6.66	NP	NP	6.66
NG	GZ-303D	13.75	13.13	13.75	Roadbox	Deep	6/3/2014	30.32	20 - 30	NP	NP	-	6.3	-	29.67	6.83	NP	NP	6.83	-	6.38	-	29.66	6.75	NP	NP	6.75
NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP	NP	-	6.45	-	29.58	5.50	NP	NP	5.50	-	6.45	-	29.57	5.50	NP	NP	5.50
NG	GZ-305S	11.84	11.64	11.84	Roadbox	Shallow	5/22/2014	14.35	5 - 15	NP	NP	-	6.75	-	14.16	4.89	NP	NP	4.89	-	6.72	-	14.15	4.92	NP	NP	4.92
NG	GZ-306S	11.90	11.49	11.90	Roadbox	Shallow	5/22/2014	15.31	5 - 15	NP	NP	-	6.55	-	14.8	4.94	NP	NP	4.94	-	6.52	-	14.78	4.97	NP	NP	4.97
NG	GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.08	NP	-	4.86	-	14.01	5.32	NP	NP	5.32	-	4.85	-	13.98	5.33	NP	NP	5.33
NG	GZ-308S	9.71	8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP	-	2.58	-	11.41	6.38	NP	NP	6.38	-	2.46	-	11.36	6.50	NP	NP	6.50
NG	GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP	NP	-	4.11	-	29.9	5.72	NP	NP	5.72	-	4.02	-	29.9	5.81	NP	NP	5.81
NG	GZ-311D	13.04	12.82	10.03	Standpipe	Deep	5/21/2014	29.91	20 - 30	NP	NP	-	7.59	-	32.68	5.23	NP	NP	5.23	-	7.58	-	32.56	5.24	NP	NP	5.24
NG	GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP	NP	-	6.13	-	15	4.45	NP	NP	4.45	-	6.1	-	14.99	4.48	NP	NP	4.48
NG	GZ-312D	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP	-	6.25	-	32.6	4.54	NP	NP	4.54	-	6.6	-	32.6	4.19	NP	NP	4.19
NG	GZ-313D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP	-	8.57	-	38.11	3.07	NP	NP	3.07	-	10.16	-	38.05	1.48	NP	NP	1.48
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP	-	9.2	-	36.42	4.28	NP	NP	4.28	-	9.64	-	36.4	3.84	NP	NP	3.84
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP	-	12.06	-	33.15	6.88	NP	NP	6.88	-	12.38	-	33.7	6.56	NP	NP	6.56
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP	NP																
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP																

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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	July 2, 2014								July 23, 2014							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP	-	10.55	-	17.25	1.72	NP	NP	1.72	-	10.68	-	17.35	1.59	NP	NP	1.59
LNG	RCA-6	10.90	10.66	10.90	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP																
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP																
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP	Well destroyed - replaced with RW-1								Well destroyed - replaced with RW-1							
LNG	RCA-22	NM	12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP	NP																
LNG	RCA-28	NS	15.38	13.01	Standpipe	Shallow	1/17/1995	15.43	5 - 15	NP	NP									-	12.06	-	17.7	3.32	NP	NP	3.32
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP																
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP																
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP																
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP																
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP	NP																
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP	NP																
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP	NP																
LNG	RCA-40	12.76	12.24	10.47	Standpipe	Shallow	5/3/1996	15.15	4 - 14	trace - 0.04	NP																
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP																
LNG	VHB-20	15.15	14.98	13.01	Standpipe	Shallow	1/22/2002	15.57	6 - 16	NP	NP	-	8.66	-	17.55	6.32	NP	NP	6.32	-	8.89	-	17.54	6.09	NP	NP	6.09
LNG	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP																
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP									Trace	11.51	-	12.56	1.57	Trace	NP	12.56
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP									-	10.68	-	17.35	3.64	NP	NP	3.64
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP																
LNG	ESS RW-2	NS	NS	NS	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP																
LNG	ESS RW-3	16.03	16.03	12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP	NP																
LNG	ESS RW-4	15.78	15.78	12.69	Recovery Well	Shallow	2002	12.06	Unknown	NP	NP																
LNG	ESS RW-5	16.14	16.14	12.86	Recovery Well	Shallow	2002	13.85	Unknown	NP	NP																
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP	NP																
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP	NP																
LNG	GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP	NP																
LNG	GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP	NP																
LNG	GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP	NP																
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP	10.24	10.26	-	14	3.92	0.02	NP	3.94	Trace	10.46	-	14.02	3.72	Trace	NP	3.72
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP	-	12.28	-	21.80	1.91	NP	NP	1.91	-	12.48	-	21.81	1.71	NP	NP	1.71
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP	-	12.18	-	37.00	1.93	NP	NP	1.93	-	12.48	-	36.95	1.63	NP	NP	1.63
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP	-	11.26	-	32.90	1.67	NP	NP	1.67	-	11.36	-	32.93	1.57	NP	NP	1.57
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP	-	9.91	-	32.20	4.99	NP	NP	4.99	-	10.15	-	32.25	4.75	NP	NP	4.75

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Providence, Rhode Island

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		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP	NP	-	10.52	-	14.57	6.81	NP	NP	6.81	-	9.51	-	14.4	7.82	NP	NP	7.82
CNG	GZ-301D	17.74	17.33	17.74	Roadbox	Deep	5/30/2014	30.11	20 - 30	NP	NP	-	10.49	-	29.72	6.84	NP	NP	6.84	-	9.61	-	29.66	7.72	NP	NP	7.72
CNG	GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP	NP	-	9.99	-	14.56	6.68	NP	NP	6.68	-	9.4	-	14.56	7.27	NP	NP	7.27
CNG	GZ-302D	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP	NP	-	9.9	-	29.45	6.69	NP	NP	6.69	-	9.35	-	29.38	7.24	NP	NP	7.24
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow	6/8/1994	15.89	6.5 - 16.5	NP	NP	-	7.57	-	15.43	4.25	NP	NP	4.25	-	6.02	-	14.97	5.80	NP	NP	5.80
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace	-	9.35	Trace	18.1	2.09	NP	Trace	2.09	-	8.51	trace	18.1	2.93	NP	trace	2.93
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP	-	7.24	-	14.98	5.80	NP	NP	5.80	-	6.3	-	15.02	6.74	NP	NP	6.74
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP	Well pinched - can not gauge								Well pinched - can not gauge							
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP	-	8.84	-	15.25	3.91	NP	NP	3.91	-	8.16	-	15.38	4.59	NP	NP	4.59
NG	RCA-15	NS	14.06	NS	Standpipe	Shallow	12/8/1994	15.97	4 - 14	NP	NP	-	8.33	-	17.9	5.73	NP	NP	5.73	-	7.83	-	17.96	6.23	NP	NP	6.23
NG	RCA-17	NS	13.44	NS	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP	-	8.29	-	14.78	5.15	NP	NP	5.15	-	6.82	-	14.79	6.62	NP	NP	6.62
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	NP	-	4.92	-	11.35	5.41	NP	NP	5.41	-	3.82	-	11.3	6.51	NP	NP	6.51
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP	-	5.63	-	10.2	6.33	NP	NP	6.33	-	4.32	-	10.19	7.64	NP	NP	7.64
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP	-	8.77	-	12.95	4.16	NP	NP	4.16	-	6.87	-	12.12	6.06	NP	NP	6.06
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP	NP	-	9.22	-	15.05	4.51	NP	NP	4.51	-	8.6	-	15.07	5.13	NP	NP	5.13
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP	-	12.88	-	18	6.22	NP	NP	6.22	-	11.29	-	18	7.81	NP	NP	7.81
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP	-	9.34	-	17	6.01	NP	NP	6.01	-	8.51	-	17	6.84	NP	NP	6.84
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP	-	9.45	-	18.55	4.20	NP	NP	4.20	7.80	7.81	-	18.54	5.84	0.01	NP	5.84
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP	9.88	9.92	-	17.3	3.10	0.04	NP	3.13	8.29	8.3	-	17.82	4.72	0.01	NP	4.73
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP	-	9.12	-	17.3	3.68	NP	NP	3.68	-	7.44	-	17.32	5.36	NP	NP	5.36
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP	-	7.5	-	10.5	5.44	NP	NP	5.44	-	6.38	-	10.45	6.56	NP	NP	6.56
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP	-	10.34	-	18.3	3.93	NP	NP	3.93	-	9.61	-	16.3	4.66	NP	NP	4.66
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP	-	4.87	-	9.3	4.80	NP	NP	4.80	-	3.62	-	9.3	6.05	NP	NP	6.05
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP	-	7.74	-	13.75	6.32	NP	NP	6.32	Buried under Snow							
NG	GZ-303S	13.78	13.28	13.78	Roadbox	Shallow	5/28/2014	15.70	5 - 15	NP	NP	-	9.98	-	29.97	3.30	NP	NP	3.30	-	6.44	-	15.01	6.84	NP	NP	6.84
NG	GZ-303D	13.75	13.13	13.75	Roadbox	Deep	6/3/2014	30.32	20 - 30	NP	NP	-	9.93	-	15.05	3.20	NP	NP	3.20	-	6.16	-	29.65	6.97	NP	NP	6.97
NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP	NP	-	7.00	-	29.62	4.95	NP	NP	4.95	-	6.18	-	29.76	5.77	NP	NP	5.77
NG	GZ-305S	11.84	11.64	11.84	Roadbox	Shallow	5/22/2014	14.35	5 - 15	NP	NP	-	6.94	-	14.14	4.70	NP	NP	4.70	-	6.31	-	14.31	5.33	NP	NP	5.33
NG	GZ-306S	11.90	11.49	11.90	Roadbox	Shallow	5/22/2014	15.31	5 - 15	NP	NP	-	6.73	-	14.77	4.76	NP	NP	4.76	-	6.05	-	14.83	5.44	NP	NP	5.44
NG	GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.08	NP	-	5.09	-	14	5.09	NP	NP	5.09	-	3.84	-	14.04	6.34	NP	NP	6.34
NG	GZ-308S	9.71	8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP	-	2.5	-	11.5	6.46	NP	NP	6.46	-	1.23	-	11.4	7.73	NP	NP	7.73
NG	GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP	NP	-	4.53	-	29.9	5.30	NP	NP	5.30	-	3.59	-	29.9	6.24	NP	NP	6.24
NG	GZ-311D	13.04	12.82	10.03	Standpipe	Deep	5/21/2014	29.91	20 - 30	NP	NP	-	7.47	-	32.55	5.35	NP	NP	5.35	-	6.52	-	32.58	6.30	NP	NP	6.30
NG	GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP	NP	-	6	-	14.9	4.58	NP	NP	4.58	-	5.87	-	14.44	4.71	NP	NP	4.71
NG	GZ-312D	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP	-	6.54	-	32.7	4.25	NP	NP	4.25	-	6.19	-	32.79	4.60	NP	NP	4.60
NG	GZ-313D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP	-	8.71	-	38.2	2.93	NP	NP	2.93	-	8.83	-	38.15	2.81	NP	NP	2.81
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP	-	9.53	-	36.35	3.95	NP	NP	3.95	-	9.09	-	36.5	4.39	NP	NP	4.39
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP	-	12.51	-	33.15	6.43	NP	NP	6.43	-	11.34	-	33.13	7.60	NP	NP	7.60
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP	NP																
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP																

Notes

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Well is located at the LNG Facility
Well is located in the CNG Fueling Station portion of the Property
Elevations are relative to NAVD88
NP - Indicates No Product observed.
NS - Not Surveyed
Blanks indicate no measurement collected on that particular day.
Potentiometric elevations for wells exhibiting LNAPL include 0.85 correction factor.
Note 1 - The readings reported from monitoring wells GZ-401 and GZ-403 in the October 2014 column were collected on November 3, 2015.

TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	October 2014								April 2015							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP	-	10.67	-	17.42	1.60	NP	NP	1.60	-	10.76	-	17.28	1.51	NP	NP	1.51
LNG	RCA-6	10.90	10.66	10.90	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP	-	11.90	-	16.23	-1.24	NP	NP	-1.24	-	11.04	-	16.20	-0.38	NP	NP	-0.38
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP	-	9.92	-	14.22	3.03	NP	NP	3.03	-	8.71	-	14	4.24	NP	NP	4.24
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP	Well destroyed - replaced with RW-1								Well destroyed - replaced with RW-1							
LNG	RCA-22	NM	12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP	NP	-	10	-	13.29	2.92	NP	NP	2.92	-	9.62	-	13	3.30	NP	NP	3.30
LNG	RCA-28	NS	15.38	13.01	Standpipe	Shallow	1/17/1995	15.43	5 - 15	NP	NP	-	12.28	-	17.81	3.10	NP	NP	3.10	-	11.49	-	17.68	3.89	NP	NP	3.89
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP	11.68	11.76	-	14.95	1.69	0.08	NP	1.76	11.53	11.55	-	14.8	1.90	0.02	NP	1.92
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP	-	10.3	-	13.05	1.86	NP	NP	1.86	-	9.3	-	12.85	2.86	NP	NP	2.86
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP	-	8.31	-	13.38	1.36	NP	NP	1.36	-	10.5	-	15.67	-0.83	NP	NP	-0.83
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP	-	12.32	-	13.21	2.77	NP	NP	2.77	-	6.42	-	12.95	8.67	NP	NP	8.67
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP	NP	-	11.94	-	13.15	-1.43	NP	NP	-1.43	-	11.88	-	13.07	-1.37	NP	NP	-1.37
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP	NP	-	9.02	-	16.33	0.34	NP	NP	0.34	-	8.95	-	16.4	0.41	NP	NP	0.41
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP	NP	-	10.01	-	14.84	3.85	NP	NP	3.85	-	9.23	-	14.6	4.63	NP	NP	4.63
LNG	RCA-40	12.76	12.24	10.47	Standpipe	Shallow	5/3/1996	15.15	4 - 14	trace - 0.04	NP	-	10.7	-	16.96	1.54	NP	NP	1.54	10.75	10.79	-	16.8	1.45	0.04	NP	1.48
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP	-	10.7	-	15.88	2.02	NP	NP	2.02	-	10.51	-	15.75	2.21	NP	NP	2.21
LNG	VHB-20	15.15	14.98	13.01	Standpipe	Shallow	1/22/2002	15.57	6 - 16	NP	NP	-	9.15	-	17.6	5.83	NP	NP	5.83	-	8.18	-	17.75	6.80	NP	NP	6.80
LNG	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP	-	11.57	-	12.67	2.73	NP	NP	2.73	trace	12.38	-	17.85	1.92	trace	NP	1.92
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP	Trace	10.71	-	12.55	2.37	Trace	NP	2.37	trace	11.62	-	12.4	1.46	trace	NP	1.46
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP	-	12.8	-	14.4	1.52	NP	NP	1.52	12.82	12.83	-	14.1	1.49	0.01	NP	1.50
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP	-	5.4	-	8.82	NS	NP	NP	NS	-	4.05	-	8.45	NS	NP	NP	NS
LNG	ESS RW-2	NS	NS	NS	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP	Trace	8.19	-	11.3	NS	Trace	NP	NS	-	7.9	-	11.1	NS	NP	NP	NS
LNG	ESS RW-3	16.03	16.03	12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP	NP	-	13.49	-	16.98	2.54	NP	NP	2.54	-	13.08	-	16.3	2.95	NP	NP	2.95
LNG	ESS RW-4	15.78	15.78	12.69	Recovery Well	Shallow	2002	12.06	Unknown	NP	NP	-	13.31	-	18.22	2.47	NP	NP	2.47	-	12.89	-	15	2.89	NP	NP	2.89
LNG	ESS RW-5	16.14	16.14	12.86	Recovery Well	Shallow	2002	13.85	Unknown	NP	NP	-	13.38	-	17.08	2.76	NP	NP	2.76	-	13.16	-	17	2.98	NP	NP	2.98
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP	NP	-	14.94	-	17.22	2.58	NP	NP	2.58	-	14.61	-	17	2.91	NP	NP	2.91
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP	NP									-	9.54	-	20.23	3.56	NP	NP	3.56
LNG	GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP	NP	-	9.89	-	20.17	-0.36	NP	NP	-0.36	-	9.24	-	20.10	0.29	NP	NP	0.29
LNG	GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP	NP	-	9.52	-	17.49	3.31	NP	NP	3.31	-	8.54	-	17.3	4.29	NP	NP	4.29
LNG	GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP	NP	-	8.05	-	17.62	3.56	NP	NP	3.56	-	6.43	-	17.7	5.18	NP	NP	5.18
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP	10.67	10.68	-	14	3.50	0.01	NP	3.51	trace	9.64	-	13.9	4.54	trace	NP	4.54
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP	-	12.54	-	21.76	1.65	NP	NP	1.65	-	12.3	-	21.75	1.89	NP	NP	1.89
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP	-	12.43	-	36.93	1.68	NP	NP	1.68	-	12.2	-	37.00	1.91	NP	NP	1.91
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP	-	11.39	-	33.07	1.54	NP	NP	1.54	-	11.46	-	32.90	1.47	NP	NP	1.47
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP	-	10.38	-	32.30	4.52	NP	NP	4.52	-	9.58	-	32.20	5.32	NP	NP	5.32

Notes

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Note 1 - The readings reported from monitoring wells GZ-401 and GZ-403 in the October 2014 column were collected on November 3, 2015.

TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	October 2015								May 2016							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP	NP	-	10.89	-	14.73	6.44	NP	NP	6.44	-	10.18	-	14.5	7.15	NP	NP	7.15
CNG	GZ-301D	17.74	17.33	17.74	Roadbox	Deep	5/30/2014	30.11	20 - 30	NP	NP	-	10.84	-	29.64	6.49	NP	NP	6.49	-	10.22	-	29.6	7.11	NP	NP	7.11
CNG	GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP	NP	-	10.23	-	14.76	6.44	NP	NP	6.44	-	9.9	-	14.54	6.77	NP	NP	6.77
CNG	GZ-302D	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP	NP	-	10.19	-	29.42	6.40	NP	NP	6.40	-	9.83	-	29.38	6.76	NP	NP	6.76
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow	6/8/1994	15.89	6.5 - 16.5	NP	NP	-	6.72	-	15.61	5.10	NP	NP	5.10	-	6.1	-	15.4	5.72	NP	NP	5.72
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace	-	9.24	trace	18	2.20	NP	trace	2.20	-	9.48	trace	17.9	1.96	NP	trace	1.96
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP	-	7.27	-	15.12	5.77	NP	NP	5.77	-	6.92	-	14.95	6.12	NP	NP	6.12
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP	Destroyed								Destroyed							
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP	-	9.2	-	15.52	3.55	NP	NP	3.55	-	8.95	-	15.3	3.80	NP	NP	3.80
NG	RCA-15	NS	14.06	NS	Standpipe	Shallow	12/8/1994	15.97	4 - 14	NP	NP	-	8.63	-	18.08	5.43	NP	NP	5.43	-	8.25	-	-	5.81	NP	NP	5.81
NG	RCA-17	NS	13.44	NS	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP	-	8	-	15	5.44	NP	NP	5.44	-	7.87	-	-	5.57	NP	NP	5.57
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	NP	-	5.13	-	11.64	5.20	NP	NP	5.20	-	4.5	-	11.32	5.83	NP	NP	5.83
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP	-	6.27	-	10.44	5.69	NP	NP	5.69	-	6	-	10.15	5.96	NP	NP	5.96
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP	-	9.31	-	12.2	3.62	NP	NP	3.62	-	8	-	11.12	4.93	NP	NP	4.93
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP	NP	-	9.54	-	15.3	4.19	NP	NP	4.19	-	9.18	-	15	4.55	NP	NP	4.55
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP	trace	13.14	-	18.15	5.96	trace	NP	5.96	-	12.32	-	17.95	6.78	NP	NP	6.78
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP	-	9.58	-	17.18	5.77	NP	NP	5.77	-	9.19	-	17	6.16	NP	NP	6.16
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP	trace	10.07	-	18.62	3.58	trace	NP	3.58	8.78	8.79	-	18.14	4.86	0.01	NP	4.86
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP	10.29	10.32	-	17.8	2.70	0.03	NP	2.72	-	8.42	-	17.19	4.60	NP	NP	4.60
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP	-	9.65	-	17.45	3.15	NP	NP	3.15	-	9.11	-	17.68	3.69	NP	NP	3.69
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP	-	8.64	-	10.8	4.30	NP	NP	4.30	-	7.66	-	10.31	5.28	NP	NP	5.28
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP	-	10.72	-	16.5	3.55	NP	NP	3.55	-	10.34	-	16.32	3.93	NP	NP	3.93
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP	-	5.55	-	9.48	4.12	NP	NP	4.12	-	5.21	-	9.1	4.46	NP	NP	4.46
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP	-	8.00	-	14.15	6.06	NP	NP	6.06	-	7.14	-	13.68	6.92	NP	NP	6.92
NG	GZ-303S	13.78	13.28	13.78	Roadbox	Shallow	5/28/2014	15.70	5 - 15	NP	NP	-	7.14	-	15.12	6.14	NP	NP	6.14	-	6.75	-	14.9	6.53	NP	NP	6.53
NG	GZ-303D	13.75	13.13	13.75	Roadbox	Deep	6/3/2014	30.32	20 - 30	NP	NP	-	7.9	-	29.67	5.23	NP	NP	5.23	-	6.49	-	29.62	6.64	NP	NP	6.64
NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP	NP	-	6.45	-	29.6	5.50	NP	NP	5.50	-	6.01	-	29.5	5.94	NP	NP	5.94
NG	GZ-305S	11.84	11.64	11.84	Roadbox	Shallow	5/22/2014	14.35	5 - 15	NP	NP	-	7.13	-	14.32	4.51	NP	NP	4.51	-	6.45	-	14.12	5.19	NP	NP	5.19
NG	GZ-306S	11.90	11.49	11.90	Roadbox	Shallow	5/22/2014	15.31	5 - 15	NP	NP	-	6.96	-	14.96	4.53	NP	NP	4.53	-	6.05	-	14.75	5.44	NP	NP	5.44
NG	GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.08	NP	-	5.24	-	14.22	4.94	NP	NP	4.94	4.47	4.55	-	14	5.63	0.08	NP	5.70
NG	GZ-308S	9.71	8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP	-	2.78	-	11.76	6.18	NP	NP	6.18	-	2.2	-	11.38	6.76	NP	NP	6.76
NG	GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP	NP	-	4.58	-	30	5.25	NP	NP	5.25	-	4.05	-	29.8	5.78	NP	NP	5.78
NG	GZ-311D	13.04	12.82	10.03	Standpipe	Deep	5/21/2014	29.91	20 - 30	NP	NP	-	7.99	-	32.7	4.83	NP	NP	4.83	-	7.45	-	32.6	5.37	NP	NP	5.37
NG	GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP	NP	-	6.29	-	14.25	4.29	NP	NP	4.29	-	5.93	-	14	4.65	NP	NP	4.65
NG	GZ-312D	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP	-	6.68	-	32.63	4.11	NP	NP	4.11	-	6.75	-	32.25	4.04	NP	NP	4.04
NG	GZ-313D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP	-	9.33	-	38.15	2.31	NP	NP	2.31	-	9.65	-	38.1	1.99	NP	NP	1.99
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP	-	9.64	-	36.42	3.84	NP	NP	3.84	-	9.46	-	36.28	4.02	NP	NP	4.02
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP	-	12.8	-	33.3	6.14	NP	NP	6.14	-	12.17	-	33.07	6.77	NP	NP	6.77
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP	NP	-	8.71	-	16.25	6.21	NP	NP	6.21	-	8.22	-	15.81	6.70	NP	NP	6.70
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP	-	7.43	-	14.65	6.86	NP	NP	6.86	-	7.3	-	14.42	6.99	NP	NP	6.99

Notes

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Elevations are relative to NAVD88
NP - Indicates No Product observed.
NS - Not Surveyed
Blanks indicate no measurement collected on that particular day.
Potentiometric elevations for wells exhibiting LNAPL include 0.85 correction factor.
Note 1 - The readings reported from monitoring wells GZ-401 and GZ-403 in the October 2014 column were collected on November 3, 2015.

TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	October 2015								May 2016							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP	-	10.65	-	17.32	1.62	NP	NP	1.62	-	10.8	-	17.32	1.47	NP	NP	1.47
LNG	RCA-6	10.90	10.66	10.90	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP	-	10.93	-	19.56	-0.03	NP	NP	-0.03	-	10.32	-	15.62	0.34	NP	NP	0.34
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP	-	10.18	-	14.28	2.77	NP	NP	2.77	-	9.17	-	14	3.78	NP	NP	3.78
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP	Well destroyed - replaced with RW-1								Well destroyed - replaced with RW-1							
LNG	RCA-22	NM	12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP	NP	-	10.08	-	13.29	2.84	NP	NP	2.84	-	9.62	-	12.9	3.30	NP	NP	3.30
LNG	RCA-28	NS	15.38	13.01	Standpipe	Shallow	1/17/1995	15.43	5 - 15	NP	NP	-	12.22	-	17.7	3.16	NP	NP	3.16	-	9.78	-	17.65	5.60	NP	NP	5.60
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP	11.43	11.53	-	12.62	1.92	0.10	NP	2.01	11.52	11.53	-	12.31	1.92	0.01	NP	1.93
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP	-	9.93	-	13.12	2.23	NP	NP	2.23	-	9.69	-	12.84	2.47	NP	NP	2.47
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP	-	7.76	-	13.49	1.91	NP	NP	1.91	-	8	-	13.19	1.67	NP	NP	1.67
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP	-	12.78	-	13.17	2.31	NP	NP	2.31	-	12.18	-	12.9	2.91	NP	NP	2.91
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP	NP	-	10	-	13.15	0.51	NP	NP	0.51	-	10.71	-	12.92	-0.20	NP	NP	-0.20
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP	NP	-	8.82	-	16.71	0.54	NP	NP	0.54	-	8.95	-	16.5	0.41	NP	NP	0.41
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP	NP	-	10.45	-	14.82	3.41	NP	NP	3.41	-	9.65	-	14.55	4.21	NP	NP	4.21
LNG	RCA-40	12.76	12.24	10.47	Standpipe	Shallow	5/3/1996	15.15	4 - 14	trace - 0.04	NP	trace	10.6	-	17.84	1.64	trace	NP	1.64	10.69	10.71	-	16.8	1.53	0.02	NP	1.55
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP	-	10.49	-	15.87	2.23	NP	NP	2.23	-	10.58	-	15.85	2.14	NP	NP	2.14
LNG	VHB-20	15.15	14.98	13.01	Standpipe	Shallow	1/22/2002	15.57	6 - 16	NP	NP	-	9.14	-	17.52	5.84	NP	NP	5.84	-	8.82	-	17.43	6.16	NP	NP	6.16
LNG	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP	-	12.68	-	18	1.62	NP	NP	1.62	-	11.62	-	12.35	2.68	NP	NP	2.68
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP	-	11.35	-	12.44	1.73	NP	NP	1.73	-	11.05	-	0.00	2.03	NP	NP	2.03
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP	-	12.69	-	14.34	1.63	NP	NP	1.63	-	12.77	-	14.1	1.55	NP	NP	1.55
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP	-	5.99	-	8.27	NS	NP	NP	NS	trace	6.07	-	8.44	NS	trace	NP	NS
LNG	ESS RW-2	NS	NS	NS	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP	-	8.23	-	11.34	NS	NP	NP	NS	trace	8.34	-	11.1	NS	trace	NP	NS
LNG	ESS RW-3	16.03	16.03	12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP	NP	-	13.65	-	16.95	2.38	NP	NP	2.38	-	13.35	-	16.75	2.68	NP	NP	2.68
LNG	ESS RW-4	15.78	15.78	12.69	Recovery Well	Shallow	2002	12.06	Unknown	NP	NP	-	13.4	-	15.19	2.38	NP	NP	2.38	-	13.13	-	14.96	2.65	NP	NP	2.65
LNG	ESS RW-5	16.14	16.14	12.86	Recovery Well	Shallow	2002	13.85	Unknown	NP	NP	-	13.72	-	17.21	2.42	NP	NP	2.42	-	13.31	-	16.9	2.83	NP	NP	2.83
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP	NP	-	15.1	-	17.37	2.42	NP	NP	2.42	-	14.8	-	16.6	2.72	NP	NP	2.72
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP	NP	-	9.85	-	20.21	3.25	NP	NP	3.25	-	9.77	-	20.22	3.33	NP	NP	3.33
LNG	GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP	NP	-	7.8	-	20.28	1.73	NP	NP	1.73	-	8.80	-	20.00	0.73	NP	NP	0.73
LNG	GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP	NP	-	9.85	-	17.45	2.98	NP	NP	2.98	-	9.30	-	18.65	3.53	NP	NP	3.53
LNG	GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP	NP	-	8.48	-	17.73	3.13	NP	NP	3.13	-	7.41	-	18.59	4.20	NP	NP	4.20
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP	trace	11.14	-	14.14	3.04	trace	NP	3.04	trace	10.21	-	13.9	3.97	trace	NP	3.97
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP	-	12.52	-	21.89	1.67	NP	NP	1.67	-	11.98	-	21.75	2.21	NP	NP	2.21
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP	-	12.47	-	37.00	1.64	NP	NP	1.64	-	11.92	-	36.85	2.19	NP	NP	2.19
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP	-	11.32	-	32.93	1.61	NP	NP	1.61	-	11.45	-	32.8	1.48	NP	NP	1.48
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP	-	10.32	-	32.27	4.58	NP	NP	4.58	-	10.05	-	32.15	4.85	NP	NP	4.85

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TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	October 2016								May 2017							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP	NP	-	10.54	-	14.5	6.79	NP	NP	6.79	-	9.11	-	14.43	8.22	NP	NP	8.22
CNG	GZ-301D	17.74	17.33	17.74	Roadbox	Deep	5/30/2014	30.11	20 - 30	NP	NP	-	10.55	-	29.8	6.78	NP	NP	6.78	-	9.21	-	29.64	8.12	NP	NP	8.12
CNG	GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP	NP	-	10.07	-	14.52	6.60	NP	NP	6.60	-	9.06	-	14.53	7.61	NP	NP	7.61
CNG	GZ-302D	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP	NP	-	10	-	29.48	6.59	NP	NP	6.59	-	9.06	-	29.32	7.53	NP	NP	7.53
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow	6/8/1994	15.89	6.5 - 16.5	NP	NP	-	6.57	-	15.4	5.25	NP	NP	5.25	-	5.97	-	15.42	5.85	NP	NP	5.85
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace	Decommissioned June 2016								Decommissioned June 2016							
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP	Destroyed								Destroyed							
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	RCA-15	NS	14.06	NS	Standpipe	Shallow	12/8/1994	15.97	4 - 14	NP	NP	-	8.3	-	17.95	5.76	NP	NP	5.76	-	7.58	-	17.83	6.48	NP	NP	6.48
NG	RCA-17	NS	13.44	NS	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP	-	7.15	-	14.73	6.29	NP	NP	6.29	-	6.81	-	14.70	6.63	NP	NP	6.63
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	NP	-	5.01	-	11.35	5.32	NP	NP	5.32	Unable to open							
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	GZ-303S	13.78	13.28	13.78	Roadbox	Shallow	5/28/2014	15.70	5 - 15	NP	NP	-	7	-	14.9	6.28	NP	NP	6.28	-	6.13	-	14.9	7.15	NP	NP	7.15
NG	GZ-303D	13.75	13.13	13.75	Roadbox	Deep	6/3/2014	30.32	20 - 30	NP	NP	-	6.72	-	29.74	6.41	NP	NP	6.41	-	5.91	-	29.71	7.22	NP	NP	7.22
NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP	NP	-	6.52	-	29.57	5.43	NP	NP	5.43	-	7.60	-	29.50	4.35	NP	NP	4.35
NG	GZ-305S	11.84	11.64	11.84	Roadbox	Shallow	5/22/2014	14.35	5 - 15	NP	NP	-	6.88	-	14.15	4.76	NP	NP	4.76	-	5.80	-	14.1	5.84	NP	NP	5.84
NG	GZ-306S	11.90	11.49	11.90	Roadbox	Shallow	5/22/2014	15.31	5 - 15	NP	NP	-	6.66	-	14.72	4.83	NP	NP	4.83	-	5.61	-	14.65	5.88	NP	NP	5.88
NG	GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.08	NP	5.05	5.1	-	14	5.08	0.05	NP	5.12	3.67	3.69	-	13.97	6.49	0.02	NP	6.51
NG	GZ-308S	9.71	8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP	-	2.62	-	11.45	6.34	NP	NP	6.34	-	1.20	-	11.36	7.76	NP	NP	7.76
NG	GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP	NP	Unable to open								-	3.64	-	11.25	6.19	NP	NP	6.19
NG	GZ-311D	13.04	12.82	10.03	Standpipe	Deep	5/21/2014	29.91	20 - 30	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	GZ-312D	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	GZ-313D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP	Decommissioned June 2016								Decommissioned June 2016							

Notes

Well is located in the Natural Gas Regulator portion of the Property
Well is located at the LNG Facility
Well is located in the CNG Fueling Station portion of the Property
Elevations are relative to NAVD88
NP - Indicates No Product observed.
NS - Not Surveyed
Blanks indicate no measurement collected on that particular day.
Potentiometric elevations for wells exhibiting LNAPL include 0.85 correction factor.
Note 1 - The readings reported from monitoring wells GZ-401 and GZ-403 in the October 2014 column were collected on November 3, 2015.

TABLE 2
SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue
Providence, Rhode Island

Site Area	Well ID	Surveyed Elevations			Well Installation Details					Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	October 2016								May 2017							
		Top of Casing Elevation (Feet)	Top of PVC Elevation (Feet)	Grade Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)	Screened Interval (feet bgs)			Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)	Depth to DNAPL (ft)	Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	RCA-6	10.90	10.66	10.90	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP	-	9.45	-	15.69	1.21	NP	NP	1.21	Could not locate well							
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP	Well destroyed - replaced with RW-1								Well destroyed - replaced with RW-1							
LNG	RCA-22	NM	12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP	NP	-	9.68	-	13.02	3.24	NP	NP	3.24	-	8.93	-	13.02	3.99	NP	NP	3.99
LNG	RCA-28	NS	15.38	13.01	Standpipe	Shallow	1/17/1995	15.43	5 - 15	NP	NP	-	12.28	-	17.65	3.10	NP	NP	3.10	-	11.14	-	17.70	4.24	NP	NP	4.24
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP	Unable to open								-	12.50	-	12.93	2.59	NP	NP	2.59
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP	NP	-	9.51	-	13.17	1.00	NP	NP	1.00	-	11.80	-	13.10	-1.29	NP	NP	-1.29
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP	NP	-	9.81	-	14.65	4.05	NP	NP	4.05	-	8.44	-	14.65	5.42	NP	NP	5.42
LNG	RCA-40	12.76	12.24	10.47	Standpipe	Shallow	5/3/1996	15.15	4 - 14	trace - 0.04	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	VHB-20	15.15	14.98	13.01	Standpipe	Shallow	1/22/2002	15.57	6 - 16	NP	NP	-	9.03	-	17.43	5.95	NP	NP	5.95	-	8.10	-	17.47	6.88	NP	NP	6.88
LNG	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	ESS RW-2	NS	NS	NS	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	ESS RW-3	16.03	16.03	12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP	NP	-	13.57	-	16.85	2.46	NP	NP	2.46	-	12.50	-	16.25	3.53	NP	NP	3.53
LNG	ESS RW-4	15.78	15.78	12.69	Recovery Well	Shallow	2002	12.06	Unknown	NP	NP	-	13.26	-	15.04	2.52	NP	NP	2.52	-	12.22	-	15.17	3.56	NP	NP	3.56
LNG	ESS RW-5	16.14	16.14	12.86	Recovery Well	Shallow	2002	13.85	Unknown	NP	NP	-	13.52	-	17	2.62	NP	NP	2.62	-	12.45	-	17.00	3.69	NP	NP	3.69
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP	NP	-	14.92	-	17.06	2.60	NP	NP	2.60	-	13.96	-	18.50	3.56	NP	NP	3.56
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP	NP	-	9.79	-	20.15	3.31	NP	NP	3.31	-	9.08	-	20.07	4.02	NP	NP	4.02
LNG	GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP	NP	-	7.95	-	20.12	1.58	NP	NP	1.58	-	9.50	-	20.24	0.03	NP	NP	0.03
LNG	GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP	Decommissioned June 2016								Decommissioned June 2016							
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP	-	10.4	-	32.92	4.50	NP	NP	4.50	-	9.25	-	32.40	5.65	NP	NP	5.65

Notes

Well is located in the Natural Gas Regulator portion of the Property
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Well is located in the CNG Fueling Station portion of the Property
Elevations are relative to NAVD88
NP - Indicates No Product observed.
NS - Not Surveyed
Blanks indicate no measurement collected on that particular day.
Potentiometric elevations for wells exhibiting LNAPL include 0.85 correction factor.
Note 1 - The readings reported from monitoring wells GZ-401 and GZ-403 in the October 2014 column were collected on November 3, 2015.

TABLE 3
HISTORICAL LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL) WELL GAUGING DATA

1/7/2021
GZA File 03.00033554.01

642 Allens Avenue
Providence, Rhode Island

	LNAPL Thickness (feet)																				
Date	11/12/01	06/20/02	09/12/02	10/08/02	10/22/02	11/15/02	12/07/02	12/24/02	01/08/03	02/03/03	02/11/03	02/28/03	Sept 2003	Sept 2005	Mar 2006	June 2006	July 2006	Oct. 2006	Dec 2006	Mar 2008	Dec. 2009	June 2010
Natural Gas Regulation Facility																						
RCA-11	trace	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	NG	NG	NG	NG	NG	NG	NG	NG
RCA-15	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	ND	NG	NG	NG	NG	NG	NG	NG	NG
VHB-1	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG
VHB-2	NI	ND	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	trace	NG	NG	NG	NG	NG	NG	Dest	Dest
VHB-3	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG
VHB-6	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	ND	NG	NG	NG	NG	NG	ND	ND	NG
VHB-7	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	ND	NG	NG	NG	NG	NG	trace	ND	ND
VHB-9	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	ND	NG	NG	NG	NG	NG	ND	Dest	Dest
VHB-10	NI	trace	0.01	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG	NG	NG	NG	NG	trace	NG	ND
VHB-18	NI	NI	NI	NG	NG	NG	NG	NG	NG	trace	NG	NG	trace	ND	ND	ND	ND	ND	NG	ND	ND	ND
VHB-21	NI	NI	NI	NG	NG	NG	NG	NG	NG	trace	NG	NG	trace	trace	NG	NG	NG	NG	NG	trace	trace	ND
VHB-22	NI	NI	NI	NG	NG	NG	NG	NG	NG	trace	NG	NG	trace	0.03	0.58	0.69	NG	0.33	0.46	0.4	NG	NG
VHB-23	NI	NI	NI	NG	NG	NG	NG	NG	NG	trace	NG	NG	trace	ND	0.05	ND	ND	ND	ND	0.01	NG	NG
CHES RW-1	NI	NI	NI	0.03	0.04	0.08	0.04	0.01	0.02	NG	0.01	ND	NG	0.1	ND	ND	ND	0.02	ND	trace	NG	NG
CHES RW-2	NI	NI	NI	ND	ND	ND	ND	ND	ND	NG	ND	ND	NG	ND	NG	NG	NG	NG	NG	trace	NG	NG
GZ-307S	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LNG Facility																						
RCA-4	0.17	NG	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
RCA-5	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG
RCA-6	trace	NG	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG
RCA-21	NG	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
RCA-22	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	ND	NG	NG	NG	NG	NG	ND	NG	NG
RCA-28	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG	NG	NG	NG	NG	trace	NG	NG
RCA-29	0.33	NG	0.01	NG	NG	NG	NG	NG	NG	NG	NG	NG	0.15	trace	ND	0.36	0.15	0.11	0.15	0.3	NG	NG
RCA-36	ND	NG	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG	NG	NG	NG	NG	ND	NG	NG
RCA-39	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	trace	NG	NG	NG	NG	NG	NG	NG	NG
RCA-40	0.25	NG	0.01	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	0.1	0.21	0.18	0.22	0.01	0.01	NG	NG
CHES RW-3	NI	NI	NI	ND	ND	ND	ND	ND	ND	NG	ND	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG
CHES RW-4	NI	NI	NI	0.03	0.02	0.09	0.08	0.05	0.03	NG	0.03	0.02	NG	2	ND	0.18	0.13	0.1	0.08	0.09	NG	NG
CHES RW-5	NI	NI	NI	0.05	0.04	0.12	0.09	0.06	0.05	NG	0.02	0.02	NG	0.5	0.1	ND	ND	0.01	ND	trace	NG	NG
ESS RW-1	NI	NI	NI	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	NG	NG	NG	NG	NG	NG	NG	NG
ESS RW-2	NI	NI	NI	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	NG	NG	NG	NG	NG	NG	NG	NG
ESS RW-4	NI	NI	NI	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	0.5	NG	NG	NG	NG	NG	NG	NG	NG
RW-1	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI

Notes:

Well is located in the Natural Gas Regulator portion of the Property
Well is located at the LNG Facility
Well is located in the CNG Fueling Station portion of the Property
NG - Not Gauged
RCA-21 was destroyed in late June 2014 and replaced with RW-1

Gray shading indicates NAPL thickness of equal to or more than 0.01 feet
ND - Not Detected
NI - Not Installed Yet
Dest - Destroyed
trace - sheen or less than 0.01 feet

This table presents LNAPL thickness data for monitoring wells that have exhibited LNAPL thicknesses of at least trace amounts since 2001.

TABLE 3
HISTORICAL LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL) WELL GAUGING DATA

642 Allens Avenue
Providence, Rhode Island

	LNAPL Thickness (feet)															
Date	January 2011	July 2011	Aug 2011	Feb 2012	July 2012	Feb 2013	Nov 2013	June 2014	July 2, 2014	July 23, 2014	October 2014	April 2015	October 2015	May 2016	October 2016	May 2017
Natural Gas Regulation																
RCA-11	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned
RCA-15	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	ND	ND
VHB-1	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VHB-2	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
VHB-3	NG	ND	trace	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Decomissioned	Decomissioned
VHB-6	ND	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned
VHB-7	ND	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned
VHB-9	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
VHB-10	trace	trace	0.01	trace	0.02	ND	0.01	trace	trace	ND	ND	ND	trace	ND	Decomissioned	Decomissioned
VHB-18	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned
VHB-21	ND	ND	ND	ND	0.01	0.01	trace	ND	trace	0.08	ND	0.01	trace	0.01	Decomissioned	Decomissioned
VHB-22	NG	0.01	ND	trace	0.04	ND	0.01	trace	NG	NG	0.04	0.01	0..03	ND	Decomissioned	Decomissioned
VHB-23	NG	0.01	0.05	trace	ND	0.01	ND	0.03	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned
CHES RW-1	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned
CHES RW-2	NG	ND	ND	trace	ND	trace	ND	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned
GZ-307S	NI	NI	NI	NI	NI	NI	NI	ND	ND	ND	ND	ND	ND	0.08	0.05	0.02
LNG Facility																
RCA-4	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
RCA-5	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	Decomissioned	Decomissioned
RCA-6	NG	ND	ND	ND	ND	ND	ND	NG	NG	NG	ND	ND	ND	ND	ND	ND
RCA-21	NG	3.58	2.94	2.79	1.65	1.44	1.91	0.91	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
RCA-22	ND	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	ND	ND
RCA-28	ND	ND	ND	ND	ND	ND	ND	ND	NG	ND	ND	ND	ND	ND	ND	ND
RCA-29	NG	0.08	trace	trace	0.11	trace	ND	0.17	NG	NG	0.08	0.02	0.10	0.01	Decomissioned	Decomissioned
RCA-36	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	ND	ND
RCA-39	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	ND	ND
RCA-40	NG	ND	ND	trace	trace	trace	ND	ND	NG	NG	ND	0.04	trace	0.02	Decomissioned	Decomissioned
CHES RW-3	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	trace	ND	ND	Decomissioned	Decomissioned
CHES RW-4	NG	0.02	0.03	0.01	trace	trace	0.01	ND	NG	trace	trace	trace	ND	ND	Decomissioned	Decomissioned
CHES RW-5	NG	ND	ND	ND	ND	ND	ND	ND	NG	ND	ND	0.01	ND	ND	Decomissioned	Decomissioned
ESS RW-1	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	trace	Decomissioned	Decomissioned
ESS RW-2	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	trace	ND	ND	ND	Decomissioned	Decomissioned
ESS RW-4	NG	ND	ND	ND	ND	ND	ND	ND	NG	NG	ND	ND	ND	ND	ND	ND
RW-1	NI	NI	NI	NI	NI	NI	NI	NI	0.02	trace	0.01	trace	trace	trace	Decomissioned	Decomissioned

Notes:

Well is located in the Natural Gas Regulator portion of the Property
Well is located at the LNG Facility
Well is located in the CNG Fueling Station portion of the Property
NG - Not Gauged
RCA-21 was destroyed in late June 2014 and replaced with RW-1

Gray shading indicates NAPL thickness of equal to or more than 0.01 feet
ND - Not Detected
NI - Not Installed Yet
Dest - Destroyed
trace - sheen or less than 0.01 feet

This table presents LNAPL thickness data for monitoring wells that have exhibited LNAPL thicknesses of at least trace amounts since 2001.

TABLE 4
HISTORICAL DENSE NON-AQUEOUS PHASE LIQUID (DNAPL) WELL GAUGING DATA

642 Allens Avenue
Providence, Rhode Island

	DNAPL Thickness (feet)																					
Date	Nov 2001	Sept 2002	Sept 2003	Sept 2005	Mar 2008	Dec. 2009	June 2010	January 2011	July 2011	Aug 2011	Feb 2012	July 2012	Feb 2013	Nov 2013	June 2014	July 2, 2014	July 23, 2014	October 2014	April 2015	October 2015	May 2016	October 2016	May 2017
	Natural Gas Regulation Facility																						
RCA-3	0.17	trace	trace	trace	ND	ND	ND	trace	trace	trace	trace	trace	trace	trace	trace	trace	trace	trace	trace	trace	trace	Decommissioned	Decommissioned

Notes:

Well is located in the Natural Gas Regulator portion of the Property	Gray shading indicates NAPL thickness of equal to or more than 0.01 feet
Well is located at the LNG Facility	ND - Not Detected
Well is located in the CNG Fueling Station portion of the Property	NI - Not Installed Yet
NG - Not Gauged	Dest - Destroyed
RCA-21 was destroyed in late June 2014 and replaced with RW-1	trace - sheen or less than 0.01 feet

This table presents DNAPL thickness data for monitoring wells that have exhibited DNAPL thicknesses of at least trace amounts since 2001.

TABLE 5
LNAPL GAUGING - GZ-307S
642 Allens Avenue
Providence, Rhode Island

Well ID	Date	Gauging Time	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Tide Condition
GZ-307S	6/3/2014	12:00	ND	4.84	ND	High
	6/6/2014	8:00	ND	4.82	ND	Low
	6/16/2014	13:50	ND	4.73	ND	High-Mid
	7/2/2014	12:00	ND	4.86	ND	High
	7/23/2014	16:00	ND	4.85	ND	Mid
	10/30/2014	13:00	ND	5.09	ND	High
	4/9/2015	15:45	ND	3.84	ND	Mid-Low
	10/14/2015	13:30	ND	5.24	ND	Mid-Low
	5/18/2016	15:55	4.47	4.55	0.08	Mid
	7/26/2016	10:30	5.10	5.36	0.26	Low
	8/30/2016	13:45	3.95	4.00	0.05	Low
	9/16/2016	9:30	5.26	5.59	0.33	High
	10/28/2016	12:52	5.05	5.10	0.05	High-Mid
	11/30/2016	11:30	4.80	4.84	0.04	Mid-Low
	12/13/2016	12:00	4.95	5.04	0.09	Low
	5/30/2017	11:00	3.67	3.69	0.02	Mid-Low

Notes: ND = Not Detected

TABLE 6
LNAPL GAUGING AND RECOVERY - RCA-21/RW-1
642 Allens Avenue
Providence, Rhode Island

Well ID	Date	Gauging Time	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Estimated Volume Purged (gallons)	Tide Condition
RCA-21	7/1/2011	NR	10.07	13.65	3.58	NR	NR
	8/3/2011	NR	10.72	13.66	2.94	NR	NR
	2/3/2012	13:00	10.95	13.74	2.79	2.25 gal	Mid
	2/8/2012	14:30	10.93	13.28	2.35	2 gal	Low
	2/15/2012	11:20	11.28	12.75	1.47	1.25 gal	Low
	2/23/2012	13:13	11.56	12.6	1.04	0.75 gal	Low
	3/2/2012	13:45	11.77	12.52	0.75	1 gal	High
	3/9/2012	12:30	11.38	12.29	0.91	0.75 gal	Low to Mid
	4/13/2012	9:43	11.88	13.45	1.57	1.5 gal	Low to Mid
	5/16/2012	13:18	10.6	12	1.4	1 gal	Mid
	6/29/2012	9:16	10.7	12.55	1.85	1 gal	Low
	7/19/2012	9:21	11.17	12.82	1.65	1 gal	High
	8/24/2012	9:45	10.62	12.25	1.63	1.5 gal	Mid
	9/25/2012	13:24	10.85	12.33	1.48	2 gal	Mid
	10/31/2012	9:35	10.71	12.6	1.89	1.5 gal	High
	11/19/2012	13:45	10.87	12.55	1.68	0.75 gal	High to Mid
	12/20/2012	12:00	11.4	12.76	1.36	1 gal	High
	2/1/2013	11:30	11.41	12.85	1.44	1 gal	High
	2/26/2013	12:20	10.45	12.35	1.9	1 gal	Low
	3/25/2013	11:15	10.53	10.6	0.07	NR	Mid
	4/24/2013	10:30	11.09	12.43	1.34	1 gal	Mid
	5/31/2013	10:00	11.65	12.75	1.1	0.75 gal	Mid to Low
	6/25/2013	11:30	10.15	10.51	0.36	0.25 gal	Mid
	7/31/2013	7:00	10.9	12.77	1.87	1.25 gal	Mid
	8/28/2013	12:00	10.9	12.42	1.52	1.5 gal	Mid
	9/27/2013	11:00	10.83	12.25	1.42	1 gal	Mid
	10/30/2013	14:00	10.97	12.13	1.16	1 gal	Mid
	11/19/2013	10:30	12.26	14.17	1.91	1 gal	Low to Mid
	12/20/2013	10:45	11.45	12.72	1.27	1.25 gal	Mid to Low
	1/27/2014	10:00	10.98	12.32	1.34	1 gal	Low
	2/25/2014	13:00	10.81	11.8	0.99	0.5 gal	Mid
	3/20/2014	9:00	11.08	11.7	0.62	0.5 gal	Mid to High
	4/29/2014	12:30	10.81	11.42	0.61	0.5 gal	Mid to Low
	5/22/2014	13:00	11.17	11.75	0.58	0.5 gal	Mid to High
	6/17/2014	Replaced RCA-21 with RW-1.					
RW-1	6/19/2014	9:35	10.30	10.30	trace	NR	Mid-Low
	7/24/2014	15:00	10.46	10.46	trace	NR	Mid
	8/28/2014	11:00	10.54	10.55	0.01	NR	High
	9/29/2014	11:15	11.06	11.06	trace	NR	High
	10/30/2014	12:00	10.67	10.68	0.01	NR	High
	11/13/2014	12:05	10.55	10.55	trace	NR	High
	12/12/2014	13:00	8.8	8.8	trace	NR	Mid
	1/29/2015	11:30	10.54	10.54	trace	NR	Mid
	2/25/2015	9:00	10.92	10.92	trace	NR	High
	3/23/2015	9:30	10.25	10.25	trace	NR	High
	4/9/2015	3:30	9.64	9.64	trace	NR	Mid
	5/22/2015	7:30	10.49	10.49	trace	NR	Low
	6/17/2015	3:00	10.92	10.92	trace	NR	Low
	7/17/2015	11:15	10.26	10.26	trace	NR	Mid
	8/28/2015	12:00	10.84	10.84	trace	NR	Low
	9/16/2015	9:30	11.16	11.16	trace	NR	Mid-High
	10/24/2015	9:00	11.02	11.02	trace	NR	High
	11/17/2015	12:00	11.47	11.47	trace	NR	High
	12/30/2015	11:30	10.19	10.19	trace	NR	High
	1/29/2016	8:30	9.87	9.87	trace	NR	High
	2/22/2016	11:00	10.17	10.17	trace	NR	Low
	3/17/2016	8:00	9.67	9.67	trace	NR	Mid-Low
	4/28/2016	3:30	9.95	9.95	trace	NR	Mid-High
	5/18/2016	8:45	6.07	6.07	trace	NR	Mid
	6/10/2016	11:30	10.22	10.22	trace	NR	Mid-High

Notes: NR = Not Recovered
Volume purged was noted as a mixture of LNAPL and groundwater
RW-1 was decommissioned in June 2016.

TABLE 7
LNAPL GAUGING AND RECOVERY - RCA-29
642 Allens Avenue
Providence, Rhode Island

Well ID	Date	Start Pumping	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Estimated Volume Purged (gallons)	Tide Condition
RCA-29	7/1/2011	12:00	10.87	10.95	0.08	NR	Mid
	8/2/2011	10:40	Trace	11.31	Trace	NR	Mid
	2/1/2012	12:00	Trace	11.73	Trace	NR	Low-Mid
	7/19/2012	9:30	11.50	11.61	0.11	<0.1 gal	Low
	2/1/2013	12:00	Trace	11.98	Trace	NR	Mid
	11/1/2013	12:00	-	11.79	ND	NR	Mid
	6/20/2014	13:00	11.38	11.55	0.17	<0.1 gal	Mid to High
	10/1/2014	8:30	11.68	11.76	0.08	NR	Low to Mid
	4/1/2015	10:00	11.53	11.55	0.02	NR	Low
	10/19/2015	12:00	11.43	11.53	0.1	<0.1 gal	Mid
	5/19/2016	12:00	11.52	11.53	0.01	NR	Low-Mid

Notes: NR = Not Recovered
Volume purged was noted as a mixture of LNAPL and groundwater
RCA-29 was decommisioned in June 2016

TABLE 8
LNAPL GAUGING AND RECOVERY - CHES-RW-A
642 Allens Avenue
Providence, Rhode Island

Well ID	Date	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Estimated Volume Purged (gallons)
CHES-RW-A	9/19/2017	7.83	8.85	1.02	110
	9/20/2017	NM	NM	1.02	NM
	9/21/2017	7.85	8.75	0.90	28
	9/22/2017	7.84	8.75	0.91	110
	9/25/2017	7.84	8.60	0.76	193
	9/26/2017	8.34	8.75	0.41	110
	9/27/2017	7.84	8.40	0.56	41
	9/28/2017	7.82	8.35	0.53	NR
	9/29/2017	7.88	8.53	0.65	55
	10/2/2017	7.82	8.20	0.38	50
	10/3/2017	7.91	8.23	0.32	NR
	10/4/2017	7.86	8.25	0.39	50
	10/5/2017	7.84	8.16	0.32	NR
	10/6/2017	7.89	8.29	0.40	50
	10/10/2017	7.79	8.28	0.49	50
	10/11/2017	7.95	8.29	0.34	NR
	10/12/2017	7.95	8.33	0.38	NR
	10/13/2017	7.95	8.38	0.43	50
	10/16/2017	8.10	8.42	0.32	45
	10/17/2017	7.97	8.38	0.41	NR
	10/18/2017	7.97	8.36	0.39	40
	10/19/2017	8.00	8.36	0.36	NR
	10/20/2017	8.11	8.33	0.22	50
	10/23/2017	8.03	8.47	0.44	50
	10/24/2017	7.92	8.17	0.25	NR
	10/25/2017	5.85	6.04	0.19	45
	10/26/2017	5.98	6.08	0.10	NR
	10/27/2017	6.53	6.73	0.20	80
	10/30/2017	2.52	2.80	0.28	NR
	10/31/2017	4.40	4.70	0.30	45
	11/1/2017	5.81	6.02	0.21	NR
	11/2/2017	6.12	6.28	0.16	NR
	11/3/2017	6.75	6.87	0.12	45
	11/6/2017	6.95	7.15	0.20	165
	11/7/2017	7.23	7.36	0.13	NR
	11/8/2017	7.21	7.32	0.11	55
	11/9/2017	7.2	7.25	0.05	NR
	11/10/2017	7.75	7.84	0.09	50
	11/13/2017	7.48	7.57	0.09	10
	11/14/2017	7.51	7.64	0.13	NR
	11/15/2017	7.45	7.59	0.14	NR
	11/16/2017	7.31	7.4	0.09	NR
	11/17/2017	7.46	7.59	0.13	30
	11/20/2017	7.49	7.65	0.16	NR
	11/21/2017	7.45	7.61	0.16	NR
	11/22/2017	7.25	7.42	0.17	NR

1607 total gallons recovered

Notes: NR = Not Recovered
NM = Not Measured
Volume purged was noted as a mixture of LNAPL and groundwater

TABLE 9
SUMMARY OF 2014 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1406415-01 06/18/2014	RCA-3 1406415-07 06/18/2014	RCA-5 1406486-06 06/19/2014	RCA-11 1406486-13 06/20/2014	RCA-12R 1406415-04 06/18/2014	RCA-13 1406486-15 06/20/2014	RCA-22 1406486-07 06/19/2014	RCA-28 1406486-11 06/19/2014	RCA-36 1406486-03 06/19/2014	RCA-38 1406486-08 06/19/2014	VHB-1 1406371-03 06/17/2014	VHB-3 1406415-16 06/18/2014	VHB-6 1406486-16 06/20/2014	VHB-7 1406486-14 06/20/2014
EPA Method 8260B VOLATILE ORGANICS																	
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1-Trichloroethane	mg/L	3.1	68	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	<0.0010	0.076	0.0039	<0.0010	<0.0010	0.0018	0.0042	0.109 D	0.0203	<0.0010	<0.0010	<0.0010	<0.0010	0.056
1,2-Dibromo-3-Chloropropane	mg/L	0.002	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE	NE	<0.0010	0.0118	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.053	0.0014	<0.0010	<0.0010	<0.0010	<0.0010	0.017
1,3-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dioxane - Screen	mg/L	NE	NE	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1-Chlorohexane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2,2-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Butanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
2-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Hexanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
4-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Isopropyltoluene	mg/L	NE	NE	<0.0010	0.0039	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Methyl-2-Pentanone	mg/L	NE	NE	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Acetone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Benzene	mg/L	0.14	18	0.0033	0.0051	0.008	<0.0010	<0.0010	0.0025	**0.766 D**	0.0207	**0.158 D**	<0.0010	<0.0010	<0.0010	<0.0010	0.0351
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Notes

Well is located in the Natural Gas Regulator portion of the Property

Well is located at the LNG Facility

Well is located in the CNG Fueling Station portion of the Property

NE = Not Established

Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.

Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

TABLE 9
SUMMARY OF 2014 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1406415-01 06/18/2014	RCA-3 1406415-07 06/18/2014	RCA-5 1406486-06 06/19/2014	RCA-11 1406486-13 06/20/2014	RCA-12R 1406415-04 06/18/2014	RCA-13 1406486-15 06/20/2014	RCA-22 1406486-07 06/19/2014	RCA-28 1406486-11 06/19/2014	RCA-36 1406486-03 06/19/2014	RCA-38 1406486-08 06/19/2014	VHB-1 1406371-03 06/17/2014	VHB-3 1406415-16 06/18/2014	VHB-6 1406486-16 06/20/2014	VHB-7 1406486-14 06/20/2014
EPA Method 8260B VOLATILE ORGANICS																	
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Carbon Disulfide	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
cis-1,2-Dichloroethene	mg/L	2.4	69	0.0127	<0.0010	<0.0010	<0.0010	0.0127	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	1.6	16	<0.0010	0.0206	0.0094	<0.0010	<0.0010	<0.0010	0.0404	0.0492	0.0303	<0.0010	0.0016	<0.0010	<0.0010	0.116 D
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Isopropylbenzene	mg/L	NE	NE	<0.0010	0.0123	0.0017	<0.0010	<0.0010	<0.0010	0.0273	0.0028	0.0047	<0.0010	0.0118	<0.0010	<0.0010	0.0062
Methyl tert-Butyl Ether	mg/L	5	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Naphthalene	mg/L	2.67	NE	<0.0010	0.461 D	0.0199	<0.0010	<0.0010	0.0242	0.39 D	**2.95 D**	0.0567	<0.0010	0.0013	<0.0010	0.0211	2.42 D
n-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0028	0.0054	<0.0010	0.0031	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	mg/L	NE	NE	<0.0010	0.0075	<0.0010	<0.0010	<0.0010	<0.0010	0.0086	<0.0010	0.0027	<0.0010	0.0024	<0.0010	<0.0010	0.0016
sec-Butylbenzene	mg/L	NE	NE	<0.0010	0.0018	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010	<0.0010	0.0033	<0.0010	<0.0010	<0.0010
Styrene	mg/L	2.2	50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0047	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
tert-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	<0.0010	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Notes

Well is located in the Natural Gas Regulator portion of the Property

Well is located at the LNG Facility

Well is located in the CNG Fueling Station portion of the Property

NE = Not Established

Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.

Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

TABLE 9
SUMMARY OF 2014 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1406415-01 06/18/2014	RCA-3 1406415-07 06/18/2014	RCA-5 1406486-06 06/19/2014	RCA-11 1406486-13 06/20/2014	RCA-12R 1406415-04 06/18/2014	RCA-13 1406486-15 06/20/2014	RCA-22 1406486-07 06/19/2014	RCA-28 1406486-11 06/19/2014	RCA-36 1406486-03 06/19/2014	RCA-38 1406486-08 06/19/2014	VHB-1 1406371-03 06/17/2014	VHB-3 1406415-16 06/18/2014	VHB-6 1406486-16 06/20/2014	VHB-7 1406486-14 06/20/2014
EPA Method 8260B VOLATILE ORGANICS																	
Tetrahydrofuran	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	mg/L	1.7	21	<0.0010	0.0024	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.1 D	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	0.0266
trans-1,2-Dichloroethene	mg/L	2.8	79	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	<0.0010	<0.0010	<0.0010	0.0066	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Chloride	mg/L	0.002	NE	<0.0010	<0.0010	<0.0010	<0.0010	**0.0022**	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	<0.0010	0.0118	0.0037	<0.0010	<0.0010	<0.0010	0.0108	0.136 D	0.0116	<0.0010	0.001	<0.0010	<0.0010	0.0955 D
Xylene P,M	mg/L	NE	NE	<0.0020	0.0104	<0.0020	<0.0020	<0.0020	<0.0020	0.0024	0.197	0.0025	<0.0020	<0.0020	<0.0020	<0.0020	0.166
Xylenes (Total)	mg/L	NE	NE	<0.0020	0.0222	0.0037	<0.0020	<0.0020	<0.0020	0.0132	0.333 D	0.0141	<0.0020	<0.0020	<0.0020	<0.0020	0.262 D

Notes

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Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

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D modifier - Analyte concentration obtained from dilution

TABLE 9
SUMMARY OF 2014 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	VHB-8R 1406371-07 06/17/2014	VHB-10 1406371-06 06/17/2014	VHB-13 1406486-01 06/19/2014	VHB-20 1406486-09 06/19/2014	VHB-21 1406486-18 06/20/2014	GZ-301D 1406415-06 06/18/2014	GZ-302S 1406415-11 06/18/2014	GZ-302D 1406415-05 06/18/2014	GZ-303S 1406415-02 06/18/2014	GZ-303D 1406415-03 06/18/2014	GZ-304D 1406415-10 06/18/2014	GZ-305S 1406415-12 06/18/2014
EPA Method 8260B VOLATILE ORGANICS															
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1-Trichloroethane	mg/L	3.1	68	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	0.216 D	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dibromo-3-Chloropropane	mg/L	0.002	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	0.0664	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dioxane - Screen	mg/L	NE	NE	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1-Chlorohexane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2,2-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Butanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
2-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Hexanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
4-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Isopropyltoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	0.0025	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Methyl-2-Pentanone	mg/L	NE	NE	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Acetone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Benzene	mg/L	0.14	18	<0.0010	0.0808	<0.0010	0.0541	0.117 D	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0053	<0.0010
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Notes

Well is located in the Natural Gas Regulator portion of the Property

Well is located at the LNG Facility

Well is located in the CNG Fueling Station portion of the Property

NE = Not Established

Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.

Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

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642 Allens Avenue
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EPA Method 8260B VOLATILE ORGANICS															
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Carbon Disulfide	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
cis-1,2-Dichloroethene	mg/L	2.4	69	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0172	0.0057	0.021	0.004	0.016	<0.0010
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	1.6	16	<0.0010	0.0017	<0.0010	<0.0010	0.92 D	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Isopropylbenzene	mg/L	NE	NE	<0.0010	0.0055	<0.0010	0.0061	0.0238	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012
Methyl tert-Butyl Ether	mg/L	5	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Naphthalene	mg/L	2.67	NE	<0.0010	0.0192	<0.0010	0.0128	**9.8 D**	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.046	<0.0010
n-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	mg/L	NE	NE	<0.0010	0.0019	<0.0010	<0.0010	0.0056	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
sec-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Styrene	mg/L	2.2	50	<0.0010	<0.0010	<0.0010	<0.0010	0.0242	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
tert-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0289	0.0465	<0.0010	0.0277	<0.0010	<0.0010

Notes

Well is located in the Natural Gas Regulator portion of the Property

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Well is located in the CNG Fueling Station portion of the Property

NE = Not Established

Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.

Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

TABLE 9
SUMMARY OF 2014 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	VHB-8R 1406371-07 06/17/2014	VHB-10 1406371-06 06/17/2014	VHB-13 1406486-01 06/19/2014	VHB-20 1406486-09 06/19/2014	VHB-21 1406486-18 06/20/2014	GZ-301D 1406415-06 06/18/2014	GZ-302S 1406415-11 06/18/2014	GZ-302D 1406415-05 06/18/2014	GZ-303S 1406415-02 06/18/2014	GZ-303D 1406415-03 06/18/2014	GZ-304D 1406415-10 06/18/2014	GZ-305S 1406415-12 06/18/2014
EPA Method 8260B VOLATILE ORGANICS															
Tetrahydrofuran	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	mg/L	1.7	21	<0.0010	<0.0010	<0.0010	<0.0010	0.21 D	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,2-Dichloroethene	mg/L	2.8	79	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0128	0.0197	<0.0010	0.0125	<0.0010	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Chloride	mg/L	0.002	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	**0.007**	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	<0.0010	0.0038	<0.0010	0.0028	0.54 D	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Xylene P,M	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	0.802 D	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Xylenes (Total)	mg/L	NE	NE	<0.0020	0.0038	<0.0020	0.0028	1.34 D	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Notes
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NE = Not Established
Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.
Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.
Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit
Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.
D modifier - Analyte concentration obtained from dilution

TABLE 9
SUMMARY OF 2014 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	GZ-306S 1406415-13 06/18/2014	GZ-307S 1406371-01 06/17/2014	GZ-308S 1406371-04 06/17/2014	GZ-309D 1406371-02 06/17/2014	GZ-311D 1406415-14 06/18/2014	GZ-312S 1406415-09 06/18/2014	GZ-312D 1406415-15 06/18/2014	GZ-313D 1406415-08 06/18/2014	GZ-314S 1406486-05 06/19/2014	GZ-314D 1406486-04 06/19/2014	GZ-315D 1406486-02 06/19/2014	GZ-318D 1406486-17 06/20/2014	GZ-319D 1406486-10 06/19/2014	GZ-320D 1406371-05 06/17/2014
EPA Method 8260B VOLATILE ORGANICS																	
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1-Trichloroethane	mg/L	3.1	68	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	0.0215	<0.0010	0.0018	0.0565	0.247 D	0.183 D	0.2 D	0.104 D	0.0032	<0.0010
1,2-Dibromo-3-Chloropropane	mg/L	0.002	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	0.0082	<0.0010	<0.0010	0.0112	0.0667	0.0379	0.056	0.0351	<0.0010	<0.0010
1,3-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dioxane - Screen	mg/L	NE	NE	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1-Chlorohexane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2,2-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Butanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
2-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Hexanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
4-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Isopropyltoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	<0.0010	<0.0010	0.0024	0.0111	0.0083	0.0117	0.0011	<0.0010	<0.0010
4-Methyl-2-Pentanone	mg/L	NE	NE	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Acetone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	0.049	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Benzene	mg/L	0.14	18	<0.0010	<0.0010	<0.0010	<0.0010	0.0216	<0.0010	0.0017	0.0433	**7.27 D**	**2.01 D**	**0.698 D**	**1.82 D**	0.0092	0.0015
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Notes

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NE = Not Established

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Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

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D modifier - Analyte concentration obtained from dilution

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642 Allens Avenue
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EPA Method 8260B VOLATILE ORGANICS																	
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Carbon Disulfide	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	0.059	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
cis-1,2-Dichloroethene	mg/L	2.4	69	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	1.6	16	<0.0010	<0.0010	<0.0010	<0.0010	0.0044	<0.0010	<0.0010	0.0147	1.57 D	0.642 D	0.596 D	0.316 D	0.0047	<0.0010
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Isopropylbenzene	mg/L	NE	NE	0.0074	0.0241	0.0097	<0.0010	0.0011	<0.0010	<0.0010	0.0111	0.0579	0.0448	0.055	0.0144	0.001	<0.0010
Methyl tert-Butyl Ether	mg/L	5	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0119	0.003	<0.0010	<0.0010	<0.0010	<0.0010	0.0017	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Naphthalene	mg/L	2.67	NE	0.0093	0.0104	0.0028	<0.0010	1.16 D	<0.0010	0.0107	0.284 D	**5.37 D**	**3.43 D**	**3.89 D**	**2.88 D**	0.0999	0.0011
n-Butylbenzene	mg/L	NE	NE	<0.0010	0.0036	0.0018	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	mg/L	NE	NE	0.0024	0.0148	0.0082	<0.0010	<0.0010	<0.0010	<0.0010	0.0035	0.018	0.018	0.0164	0.0027	<0.0010	<0.0010
sec-Butylbenzene	mg/L	NE	NE	0.0051	0.0058	0.0024	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	0.002	0.0016	<0.0010	<0.0010	<0.0010
Styrene	mg/L	2.2	50	<0.0010	<0.0010	<0.0010	<0.0010	0.0044	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0044	0.0013	<0.0010
tert-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Notes

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Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.

Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

TABLE 9
SUMMARY OF 2014 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	GZ-306S 1406415-13 06/18/2014	GZ-307S 1406371-01 06/17/2014	GZ-308S 1406371-04 06/17/2014	GZ-309D 1406371-02 06/17/2014	GZ-311D 1406415-14 06/18/2014	GZ-312S 1406415-09 06/18/2014	GZ-312D 1406415-15 06/18/2014	GZ-313D 1406415-08 06/18/2014	GZ-314S 1406486-05 06/19/2014	GZ-314D 1406486-04 06/19/2014	GZ-315D 1406486-02 06/19/2014	GZ-318D 1406486-17 06/20/2014	GZ-319D 1406486-10 06/19/2014	GZ-320D 1406371-05 06/17/2014
EPA Method 8260B VOLATILE ORGANICS																	
Tetrahydrofuran	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	mg/L	1.7	21	<0.0010	0.0019	<0.0010	<0.0010	0.0068	<0.0010	<0.0010	0.0018	0.0368	0.0147	0.0184	0.156 D	0.0013	<0.0010
trans-1,2-Dichloroethene	mg/L	2.8	79	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Chloride	mg/L	0.002	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	<0.0010	0.0012	<0.0010	<0.0010	0.0083	<0.0010	<0.0010	0.0153	0.412 D	0.144 D	0.288 D	0.184 D	0.0032	<0.0010
Xylene P,M	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	0.0121	<0.0020	<0.0020	0.0065	<0.200 D	0.0407	0.0867	0.208 D	0.003	<0.0020
Xylenes (Total)	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	0.0204	<0.0020	<0.0020	0.0218	0.412 D	0.185 D	0.375 D	0.392 D	0.0062	<0.0020

Notes

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Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

TABLE 10
SUMMARY OF 2015 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1510464-01 10/15/2015	RCA-3 1510464-02 10/15/2015	RCA-11 1510464-03 10/15/2015	RCA-12R 1510464-04 10/15/2015	RCA-22 1510464-05 10/16/2015	RCA-28 1510463-08 10/16/2015	RCA-36 1510503-01 10/19/2015	RCA-38 1510464-06 10/16/2015	VHB-1 1510464-08 10/15/2015	VHB-3 1510464-07 10/15/2015	VHB-6 1510464-09 10/15/2015
EPA Method 8260B VOLATILE ORGANICS														
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1-Trichloroethane	mg/L	3.1	68	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	0.0004	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	<0.0010	0.148	0.0001	<0.0010	0.0055	0.203	0.0017	<0.0010	0.0004	<0.0010	<0.0010
1,2-Dibromo-3-Chloropropane	mg/L	0.002	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE	NE	<0.0010	0.024	<0.0010	<0.0010	<0.0010	0.0853	0.0001	<0.0010	0.0001	<0.0010	<0.0010
1,3-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dioxane - Screen	mg/L	NE	NE	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1-Chlorohexane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2,2-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Butanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
2-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Hexanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
4-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Isopropyltoluene	mg/L	NE	NE	<0.0010	0.0059	<0.0010	<0.0010	<0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Methyl-2-Pentanone	mg/L	NE	NE	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Acetone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.059	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Benzene	mg/L	0.14	18	0.0028	0.116	0.0007	<0.0010	**1.88**	0.035	0.0229	<0.0010	0.0002	<0.0010	<0.0010
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

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EPA Method 8260B VOLATILE ORGANICS														
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Carbon Disulfide	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0191	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
cis-1,2-Dichloroethene	mg/L	2.4	69	0.0056	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	1.6	16	<0.0010	0.0841	<0.0010	<0.0010	0.063	0.0944	0.0028	<0.0010	<0.0010	<0.0010	<0.0010
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Isopropylbenzene	mg/L	NE	NE	<0.0010	0.0228	<0.0010	<0.0010	0.0404	0.0042	0.0004	0.0001	0.0119	<0.0010	0.0004
Methyl tert-Butyl Ether	mg/L	5	NE	0.0006	0.0004	<0.0010	0.0006	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Naphthalene	mg/L	2.67	NE	<0.003	0.813	0.0051	<0.003	0.0152	**5.77**	0.0015	<0.002	0.0016	<0.0010	<0.002
n-Butylbenzene	mg/L	NE	NE	<0.0010	0.008	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	mg/L	NE	NE	<0.0010	0.0094	<0.0010	<0.0010	0.0086	0.001	0.0002	<0.0010	0.0024	<0.0010	<0.0010
sec-Butylbenzene	mg/L	NE	NE	<0.0010	0.0021	<0.0010	<0.0010	0.0015	0.0005	<0.0010	<0.0010	0.0038	<0.0010	<0.0010
Styrene	mg/L	2.2	50	<0.0010	0.0009	0.0003	<0.0010	0.0001	0.0078	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
tert-Butylbenzene	mg/L	NE	NE	<0.0010	0.0006	<0.0010	<0.0010	0.0003	<0.0010	<0.0010	<0.0010	0.001	<0.0010	<0.0010
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Notes

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Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

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D modifier - Analyte concentration obtained from dilution

TABLE 10
SUMMARY OF 2015 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1510464-01 10/15/2015	RCA-3 1510464-02 10/15/2015	RCA-11 1510464-03 10/15/2015	RCA-12R 1510464-04 10/15/2015	RCA-22 1510464-05 10/16/2015	RCA-28 1510463-08 10/16/2015	RCA-36 1510503-01 10/19/2015	RCA-38 1510464-06 10/16/2015	VHB-1 1510464-08 10/15/2015	VHB-3 1510464-07 10/15/2015	VHB-6 1510464-09 10/15/2015
EPA Method 8260B VOLATILE ORGANICS														
Tetrahydrofuran	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	mg/L	1.7	21	<0.0010	0.012	0.001	<0.0010	0.0024	0.245	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,2-Dichloroethene	mg/L	2.8	79	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Chloride	mg/L	0.002	NE	**0.0074**	<0.0010	<0.0010	0.0006	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	<0.0010	0.0525	0.0002	<0.0010	0.0292	0.16	0.0009	<0.0010	0.0008	<0.0010	<0.0010
Xylene P,M	mg/L	NE	NE	<0.0020	0.0409	0.0004	<0.0020	0.0039	0.366	0.0003	<0.0020	0.0004	<0.0020	<0.0020
Xylenes (Total)	mg/L	NE	NE	<0.0020	0.0934	0.0006	<0.0020	0.0332	0.526	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

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EPA Method 8260B VOLATILE ORGANICS													
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,1,1-Trichloroethane	mg/L	3.1	68	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0500	<0.0005	<0.0005	<0.0005	<0.0500	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	0.0004	<0.0010	<0.100	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.200	<0.0020	<0.0020	<0.0020	<0.200	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	0.119	<0.0010	0.0009	<0.0010	0.279	<0.0010	<0.0010	<0.0010	0.258	0.0825
1,2-Dibromo-3-Chloropropane	mg/L	0.002	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.500	<0.0050	<0.0050	<0.0050	<0.500	<0.0050
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE	NE	0.0422	<0.0010	<0.0010	<0.0010	0.047	<0.0010	<0.0010	<0.0010	0.049	0.0218
1,3-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
1,4-Dioxane - Screen	mg/L	NE	NE	<0.500	<0.500	<0.500	<0.500	<50.0	<0.500	<0.500	<0.500	<50.0	<0.500
1-Chlorohexane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
2,2-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
2-Butanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<1.00	<0.0100	<0.0100	<0.0100	<1.00	<0.0100
2-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
2-Hexanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<1.00	<0.0100	<0.0100	<0.0100	<1.00	<0.0100
4-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
4-Isopropyltoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	0.016	0.0038
4-Methyl-2-Pentanone	mg/L	NE	NE	<0.0250	<0.0250	<0.0250	<0.0250	<2.50	<0.0250	<0.0250	<0.0250	<2.50	<0.0250
Acetone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<1.00	<0.0100	<0.0100	<0.0100	<1.00	0.0028
Benzene	mg/L	0.14	18	0.0485	<0.0010	**0.162**	<0.0010	**0.682**	0.0002	0.0023	<0.0010	**7.67**	**1.79**
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.200	<0.0020	<0.0020	<0.0020	<0.200	<0.0020

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Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

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D modifier - Analyte concentration obtained from dilution

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642 Allens Avenue
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EPA Method 8260B VOLATILE ORGANICS													
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0600	<0.0006	<0.0006	<0.0006	<0.0600	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.200	<0.0020	<0.0020	<0.0020	<0.200	<0.0020
Carbon Disulfide	mg/L	NE	NE	0.0022	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	0.0023
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.200	<0.0020	<0.0020	<0.0020	<0.200	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Chloromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.200	<0.0020	<0.0020	<0.0020	<0.200	<0.0020
cis-1,2-Dichloroethene	mg/L	2.4	69	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	0.0272	0.0168	<0.0010	<0.100	<0.0010
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0400	<0.0004	<0.0004	<0.0004	<0.0400	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.200	<0.0020	<0.0020	<0.0020	<0.200	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Ethylbenzene	mg/L	1.6	16	0.2	<0.0010	0.0021	<0.0010	1.47	<0.0010	<0.0010	<0.0010	**2.37**	0.518
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0600	<0.0006	<0.0006	<0.0006	<0.0600	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Isopropylbenzene	mg/L	NE	NE	0.011	<0.0010	0.0042	<0.0010	0.031	<0.0010	<0.0010	<0.0010	0.052	0.0296
Methyl tert-Butyl Ether	mg/L	5	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	0.0005	<0.0010	<0.100	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.200	<0.0020	<0.0020	<0.0020	<0.200	<0.0020
Naphthalene	mg/L	2.67	NE	**5.16**	<0.0010	0.0413	<0.0010	**8.85**	<0.003	<0.003	<0.003	**4.44**	**2.99**
n-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
n-Propylbenzene	mg/L	NE	NE	0.0024	<0.0010	0.0013	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	0.0092
sec-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	0.0003	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	0.0011
Styrene	mg/L	2.2	50	0.0011	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	0.0005
tert-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	0.0003
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	0.0039	<0.0010	<0.0010	<0.100	<0.0010

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EPA Method 8260B VOLATILE ORGANICS													
Tetrahydrofuran	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.500	<0.0050	<0.0050	<0.0050	<0.500	<0.0050
Toluene	mg/L	1.7	21	0.0551	<0.0010	0.0015	<0.0010	0.18	<0.0010	<0.0010	<0.0010	0.052	0.0145
trans-1,2-Dichloroethene	mg/L	2.8	79	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	0.0004	<0.0010	<0.0010	<0.100	<0.0010
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0400	<0.0004	<0.0004	<0.0004	<0.0400	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	0.012	<0.0010	<0.0010	<0.100	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.100	<0.0010
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.500	<0.0050	<0.0050	<0.0050	<0.500	<0.0050
Vinyl Chloride	mg/L	0.002	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	**0.0038**	0.0002	<0.0010	<0.100	<0.0010
Xylene O	mg/L	NE	NE	0.132	<0.0010	0.0044	<0.0010	0.726	<0.0010	<0.0010	<0.0010	0.546	0.082
Xylene P,M	mg/L	NE	NE	0.201	<0.0020	0.0007	<0.0020	0.771	<0.0020	<0.0020	<0.0020	0.226	0.0347
Xylenes (Total)	mg/L	NE	NE	0.333	<0.0020	0.0051	<0.0020	1.5	<0.0020	<0.0020	<0.0020	0.772	0.117

Notes

Well is located in the Natural Gas Regulator portion of the Property

Well is located at the LNG Facility

Well is located in the CNG Fueling Station portion of the Property

NE = Not Established

Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.

Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

TABLE 11
SUMMARY OF 2016 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater	RIDEM GB Groundwater UCL	RCA-1 1605608-04 5/20/2016	RCA-3 1605607-04 5/19/2016	RCA-11 1605608-08 5/20/2016	RCA-12R 1605608-02 5/20/2016	RCA-22 1605607-10 5/19/2016	RCA-28 1605607-09 5/19/2016	RCA-36 1605607-07 5/19/2016	RCA-38 1605607-12 5/19/2016	VHB-1 1605608-06 5/20/2016	VHB-3 1605607-02 5/20/2016	VHB-6 1605607-01 5/19/2016	VHB-7 1605608-09 5/20/2016	VHB-8R 1605608-07 5/20/2016	VHB-10 1605607-05 5/19/2016	VHB-13 1605607-06 5/19/2016	VHB-21 1605608-10 5/20/2016	GZ-301D 1605608-01 5/20/2016	GZ-304D 1605608-03 5/20/2016	GZ-309D 1605608-05 5/20/2016	GZA-314S 1605607-13 5/19/2016	GZ-314D 1605607-11 5/19/2016
EPA Method 8260B VOLATILE ORGANICS																								
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1-Trichloroethane	mg/L	3.1	68	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	0.0003	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0003	<0.0010	<0.0010	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	<0.0010	0.116	0.0004	<0.0010	0.0084	0.105	0.0049	<0.0010	0.0579	<0.0010	0.0007	<0.0010	<0.0010	0.0002	0.0049	0.32	<0.0010	<0.0010	0.0002	0.338	0.12
1,2-Dibromo-3-Chloropropane	mg/L	0.002	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE	NE	<0.0010	0.025	<0.0010	<0.0010	0.0005	0.0621	0.0004	<0.0010	0.0161	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0004	0.09	<0.0010	<0.0010	0.0001	0.0862	0.0185
1,3-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dioxane - Screen	mg/L	NE	NE	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1-Chlorohexane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2,2-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Butanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
2-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Hexanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100

Notes

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EPA Method 8260B VOLATILE ORGANICS																								
4-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Isopropyltoluene	mg/L	NE	NE	<0.0010	0.0089	<0.0010	<0.0010	0.0005	0.0013	<0.0010	<0.0010	0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0024	<0.0010	<0.0010	<0.0010	0.0141	0.0035
4-Methyl-2-Pentanone	mg/L	NE	NE	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Acetone	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0031	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0028
Benzene	mg/L	0.14	18	0.0016	0.0049	0.001	<0.0010	**1.11**	0.021	0.0468	<0.0010	0.0085	<0.0010	0.0002	0.0485	<0.0010	0.0326	0.0468	**0.148**	0.0002	0.002	<0.0010	**4.83**	**1.22**
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Carbon Disulfide	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0191	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0023
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0002	<0.0010	<0.0010	<0.0010	0.0003	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
cis-1,2-Dichloroethene	mg/L	2.4	69	0.0042	<0.0010	<0.0010	0.0099	0.0003	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0003	0.0148	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	1.6	16	<0.0010	0.0261	0.0001	<0.0010	0.063	0.0523	0.0043	<0.0010	0.118	<0.0010	0.0002	<0.0010	<0.0010	0.0002	0.0043	1.21	<0.0010	<0.0010	<0.0010	**1.83**	0.438

Notes

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642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater	RIDEM GB Groundwater UCL	RCA-1 1605608-04 5/20/2016	RCA-3 1605607-04 5/19/2016	RCA-11 1605608-08 5/20/2016	RCA-12R 1605608-02 5/20/2016	RCA-22 1605607-10 5/19/2016	RCA-28 1605607-09 5/19/2016	RCA-36 1605607-07 5/19/2016	RCA-38 1605607-12 5/19/2016	VHB-1 1605608-06 5/20/2016	VHB-3 1605607-02 5/20/2016	VHB-6 1605607-01 5/19/2016	VHB-7 1605608-09 5/20/2016	VHB-8R 1605608-07 5/20/2016	VHB-10 1605607-05 5/19/2016	VHB-13 1605607-06 5/19/2016	VHB-21 1605608-10 5/20/2016	GZ-301D 1605608-01 5/20/2016	GZ-304D 1605608-03 5/20/2016	GZ-309D 1605608-05 5/20/2016	GZA-314S 1605607-13 5/19/2016	GZ-314D 1605607-11 5/19/2016
EPA Method 8260B VOLATILE ORGANICS																								
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Isopropylbenzene	mg/L	NE	NE	<0.0010	0.0228	<0.0010	<0.0010	0.0398	0.0048	0.0018	0.0001	0.0063	<0.0010	0.0011	<0.0010	<0.0010	0.002	0.0018	0.0201	<0.0010	<0.0010	0.0112	0.0794	0.0253
Methyl tert-Butyl Ether	mg/L	5	NE	0.0006	0.0004	<0.0010	0.0006	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0006	<0.0010	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Naphthalene	mg/L	2.67	NE	0.0052	0.554	0.0093	<0.003	0.614	**3.19**	0.005	0.0006	2.23	0.0008	0.0147	0.0003	0.0003	0.0027	0.005	**12.1**	<0.003	0.0005	0.0009	**6.41**	2.52
n-Butylbenzene	mg/L	NE	NE	<0.0010	0.0121	<0.0010	<0.0010	0.0046	0.002	<0.0010	<0.0010	<0.0010	<0.0010	0.0002	<0.0010	<0.0010	<0.0010	<0.0010	0.0026	<0.0010	<0.0010	<0.0010	0.014	0.0027
n-Propylbenzene	mg/L	NE	NE	<0.0010	0.0122	<0.0010	<0.0010	0.0103	0.001	0.0009	<0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010	0.0003	0.0009	0.0055	<0.0010	<0.0010	0.0028	0.0229	0.0082
sec-Butylbenzene	mg/L	NE	NE	<0.0010	0.0033	<0.0010	<0.0010	0.0022	0.0003	<0.0010	<0.0010	0.0004	<0.0010	<0.0010	<0.0010	<0.0010	0.0003	<0.0010	0.0006	<0.0010	<0.0010	0.0033	0.0026	0.0008
Styrene	mg/L	2.2	50	<0.0010	0.0009	<0.0010	<0.0010	<.0010	0.0117	<0.0010	<0.0010	0.0032	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0298	<0.0010	<0.0010	<0.0010	0.0032	<0.0010
tert-Butylbenzene	mg/L	NE	NE	<0.0010	0.0011	<0.0010	<0.0010	0.0006	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0007	<0.0010	0.0003
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.100	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0039	<0.0010	<0.0010	<0.0010	<0.0010
Tetrahydrofuran	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	mg/L	1.7	21	0.0002	0.003	0.0003	<0.0010	0.0014	0.097	0.0003	<0.0010	0.0108	<0.0010	<0.0010	<0.0010	<0.0010	0.0002	0.0003	0.226	<0.0010	<0.0010	0.0002	0.043	0.0086
trans-1,2-Dichloroethene	mg/L	2.8	79	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0004	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	<0.0010	<0.0010	0.0063	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Chloride	mg/L	0.002	NE	**0.0067**	<0.0010	<0.0010	**0.0022**	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0007	0.0002	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	<0.0010	0.0173	0.0002	<0.0010	0.0197	0.128	0.0024	0.0001	0.113	<0.0010	0.0003	<0.0010	<0.0010	0.0015	0.0024	0.655	<0.0010	<0.0010	0.0008	0.5	0.0964
Xylene P,M	mg/L	NE	NE	<0.0020	0.0192	0.0003	<0.0020	0.0051	0.147	0.0009	<0.0020	0.132	<0.0020	<0.0020	<0.0020	<0.0020	0.0002	0.0009	1.25	<0.0020	<0.0020	0.0004	0.18	0.0208
Xylenes (Total)	mg/L	NE	NE	<0.0020	0.0365	0.0005	<0.0020	0.0248	0.275	0.0032	<0.0020	0.245	<0.0020	<0.0020	<0.0020	<0.0020	0.0051	0.0032	1.91	<0.0020	<0.0020	<0.0020	0.681	0.117

Notes

Well is located in the Natural Gas Regulator portion of the Property

Well is located at the LNG Facility

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NE = Not Established

Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.

Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

TABLE 12
SUMMARY OF 2017 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1705838-07 5/31/2017	RCA-12R 1705838-10 5/31/2017	RCA-15 1705838-12 5/31/2017	RCA-22 1705838-06 5/30/2017	RCA-36 1705838-03 5/30/2017	VHB-20 1705838-05 5/30/2017	GZA-201 1705838-02 5/30/2017	GZ-301D 1705838-09 5/31/2017	GZ-304D 1705838-08 5/31/2017	GZ-309D 1705838-11 5/31/2017	GZ-319D 1705838-04 5/30/2017
EPA Method 8260B VOLATILE ORGANICS														
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1-Trichloroethane	mg/L	3.1	68	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.001	0.0048	0.0027	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dibromo-3-Chloropropane	mg/L	0.002	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dioxane - Screen	mg/L	NE	NE	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1-Chlorohexane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2,2-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Butanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
2-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Hexanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100

Notes

Well is located in the Natural Gas Regulator portion of the Property

Well is located at the LNG Facility

Well is located in the CNG Fueling Station portion of the Property

NE = Not Established

Blue shaded cells indicate that the detection limit exceeds the RIDEM GB

Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

TABLE 12
SUMMARY OF 2017 GROUNDWATER VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1705838-07 5/31/2017	RCA-12R 1705838-10 5/31/2017	RCA-15 1705838-12 5/31/2017	RCA-22 1705838-06 5/30/2017	RCA-36 1705838-03 5/30/2017	VHB-20 1705838-05 5/30/2017	GZA-201 1705838-02 5/30/2017	GZ-301D 1705838-09 5/31/2017	GZ-304D 1705838-08 5/31/2017	GZ-309D 1705838-11 5/31/2017	GZ-319D 1705838-04 5/30/2017
EPA Method 8260B VOLATILE ORGANICS														
4-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Isopropyltoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Methyl-2-Pentanone	mg/L	NE	NE	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Acetone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	0.0100	0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Benzene	mg/L	0.14	18	0.0028	<0.0010	<0.0010	**0.862 D**	0.0362	0.0086	<0.0010	<0.0010	<0.0010	<0.0010	0.0086
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Carbon Disulfide	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
cis-1,2-Dichloroethene	mg/L	2.4	69	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	1.6	16	<0.0010	<0.0010	<0.0010	0.039	0.0034	0.0026	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Notes

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Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

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D modifier - Analyte concentration obtained from dilution

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Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1705838-07 5/31/2017	RCA-12R 1705838-10 5/31/2017	RCA-15 1705838-12 5/31/2017	RCA-22 1705838-06 5/30/2017	RCA-36 1705838-03 5/30/2017	VHB-20 1705838-05 5/30/2017	GZA-201 1705838-02 5/30/2017	GZ-301D 1705838-09 5/31/2017	GZ-304D 1705838-08 5/31/2017	GZ-309D 1705838-11 5/31/2017	GZ-319D 1705838-04 5/30/2017
EPA Method 8260B VOLATILE ORGANICS														
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Isopropylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	0.0323	0.001	0.0026	0.0042	<0.0010	<0.0010	0.0071	0.0015
Methyl tert-Butyl Ether	mg/L	5	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Naphthalene	mg/L	2.67	NE	0.0251	<0.0010	<0.0010	0.671	0.0027	0.0062	0.0037	<0.0010	<0.0010	0.0022	<0.0010
n-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	0.01	<0.0010	<0.0010	0.0023	<0.0010	<0.0010	0.0019	<0.0010
sec-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	0.0019	<0.0010	<0.0010	0.0026	<0.0010	<0.0010	0.0022	<0.0010
Styrene	mg/L	2.2	50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
tert-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrahydrofuran	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	mg/L	1.7	21	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,2-Dichloroethene	mg/L	2.8	79	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	0.0014	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Chloride	mg/L	0.002	NE	**0.0059**	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	0.0128	0.0015	0.0017	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Xylene P,M	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	0.0027	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Xylenes (Total)	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	0.0155	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Notes

Well is located in the Natural Gas Regulator portion of the Property

Well is located at the LNG Facility

Well is located in the CNG Fueling Station portion of the Property

NE = Not Established

Blue shaded cells indicate that the detection limit exceeds the RIDEM GB

Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.

Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit

Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.

D modifier - Analyte concentration obtained from dilution

TABLE 13
SUMMARY OF GROUNDWATER QAQC VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	Trip Blank 061714 1406371-08 06/17/2014	Trip Blank 61814 1406415-18 06/18/2014	Trip Blank 061914 1406486-19 06/19/2014	VHB-3 1406415-16 06/18/2014	BD-1 1406415-17 06/18/2014	RCA-28 1406486-11 06/19/2014	BD-2 1406486-12 06/19/2014	VHB-6 1510464-09 10/15/2015	BD 101515 1510464-10 10/15/2015	GZ-314D 1510463-06 10/16/2015	BD101615 1510463-07 10/16/2015	Trip Blank 1510464-14 10/15/2015	Trip Blank 1510503-03 10/19/2015
EPA Method 8260B VOLATILE ORGANICS																
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1-Trichloroethane	mg/L	3.1	68	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.109 D	0.168 D	<0.0010	<0.0010	0.0825	0.0785	<0.0010	<0.0010
1,2-Dibromo-3-Chloropropane	mg/L	0.002	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.053	0.0368	<0.0010	<0.0010	0.0218	0.0229	<0.0010	<0.0010
1,3-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dioxane - Screen	mg/L	NE	NE	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1-Chlorohexane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2,2-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Butanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
2-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Hexanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
4-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Isopropyltoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0082	<0.0010	<0.0010	0.0038	0.004	<0.0010	<0.0010
4-Methyl-2-Pentanone	mg/L	NE	NE	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Acetone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.0028	<0.0100	<0.0100	<0.0100
Benzene	mg/L	0.14	18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0207	**2.12 D**	<0.0010	<0.0010	**1.79**	**1.84**	<0.0010	<0.0010
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Notes
NE = Not Established
Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.
Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.
Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit
Method 2 GB Objective criteria for naphthalene developed by GZA in accordance with the methods described in the Remediation Regulations.
BD-1 is a blind duplicate for VHB-3
BD-2 is a blind duplicate of RCA-28
BD 101515 is a blind duplicate of VHB-6
BD 101615 is a blind duplicate of GZ-314D
BD 051916 is a blind duplicate of RCA-36
BD 052016 is a blind duplicate of VHB-3
D modifier - Analyte concentration obtained from dilution

TABLE 13
SUMMARY OF GROUNDWATER QAQC VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	Trip Blank 061714 1406371-08 06/17/2014	Trip Blank 61814 1406415-18 06/18/2014	Trip Blank 061914 1406486-19 06/19/2014	VHB-3 1406415-16 06/18/2014	BD-1 1406415-17 06/18/2014	RCA-28 1406486-11 06/19/2014	BD-2 1406486-12 06/19/2014	VHB-6 1510464-09 10/15/2015	BD 101515 1510464-10 10/15/2015	GZ-314D 1510463-06 10/16/2015	BD101615 1510463-07 10/16/2015	Trip Blank 1510464-14 10/15/2015	Trip Blank 1510503-03 10/19/2015
EPA Method 8260B VOLATILE ORGANICS																
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Carbon Disulfide	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0023	0.0016	<0.0010	<0.0010
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
cis-1,2-Dichloroethene	mg/L	2.4	69	<0.0010	<0.0010	<0.0010	<0.0010	0.0232	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	1.6	16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0492	0.666 D	<0.0010	<0.0010	0.518	0.514	<0.0010	<0.0010
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Isopropylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0028	0.0436	0.0004	0.0004	0.0296	0.0316	<0.0010	<0.0010
Methyl tert-Butyl Ether	mg/L	5	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0008	0.0003
Naphthalene	mg/L	2.67	NE	<0.0010	<0.0010	<0.0010	<0.0010	0.0011	**2.95 D**	**3.57 D**	<0.002	<0.002	**2.99**	**3.17**	<0.0010	<0.0010
n-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0176	<0.0010	<0.0010	0.0092	0.0098	<0.0010	<0.0010
sec-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	<0.0010	<0.0010	0.0011	0.0011	<0.0010	<0.0010
Styrene	mg/L	2.2	50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0047	<0.0010	<0.0010	<0.0010	0.0005	0.0004	<0.0010	<0.0010
tert-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0003	0.0002	<0.0010	<0.0010
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Notes
NE = Not Established
Blue shaded cells indicate that the detection limit exceeds the RIDEM GB Groundwater Objective.
Gray shaded cells and bolded text indicate the concentration exceeds the GB Groundwater Objective.
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D modifier - Analyte concentration obtained from dilution

TABLE 13
SUMMARY OF GROUNDWATER QAQC VOC ANALYTICAL RESULTS
642 Allens Avenue
Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	Trip Blank 061714 1406371-08 06/17/2014	Trip Blank 61814 1406415-18 06/18/2014	Trip Blank 061914 1406486-19 06/19/2014	VHB-3 1406415-16 06/18/2014	BD-1 1406415-17 06/18/2014	RCA-28 1406486-11 06/19/2014	BD-2 1406486-12 06/19/2014	VHB-6 1510464-09 10/15/2015	BD 101515 1510464-10 10/15/2015	GZ-314D 1510463-06 10/16/2015	BD101615 1510463-07 10/16/2015	Trip Blank 1510464-14 10/15/2015	Trip Blank 1510503-03 10/19/2015
EPA Method 8260B VOLATILE ORGANICS																
Tetrahydrofuran	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	mg/L	1.7	21	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.1 D	0.0147	<0.0010	<0.0010	0.0145	0.0124	<0.0010	<0.0010
trans-1,2-Dichloroethene	mg/L	2.8	79	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0036	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Chloride	mg/L	0.002	NE	<0.0010	<0.0010	<0.0010	<0.0010	**0.0066**	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.136 D	0.143 D	<0.0010	<0.0010	0.082	0.0785	<0.0010	<0.0010
Xylene P,M	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.197	0.0398	<0.0020	<0.0020	0.0347	0.0309	<0.0020	<0.0020
Xylenes (Total)	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.333 D	0.183 D	<0.0020	<0.0020	0.117	0.109	<0.0020	<0.0020

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EPA Method 8260B VOLATILE ORGANICS											
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,1-Trichloroethane	mg/L	3.1	68	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	0.0049	0.0033	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dibromo-3-Chloropropane	mg/L	0.002	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE	NE	0.0004	0.0003	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dioxane - Screen	mg/L	NE	NE	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1-Chlorohexane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2,2-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Butanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
2-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
2-Hexanone	mg/L	NE	NE	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
4-Chlorotoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Isopropyltoluene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
4-Methyl-2-Pentanone	mg/L	NE	NE	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Acetone	mg/L	NE	NE	<0.0010	<0.0100	<0.0010	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Benzene	mg/L	0.14	18	0.0468	0.0363	<0.0010	<0.0010	<0.0010	0.0085	<0.0010	<0.0010
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Notes
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EPA Method 8260B VOLATILE ORGANICS											
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Carbon Disulfide	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
cis-1,2-Dichloroethene	mg/L	2.4	69	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	1.6	16	0.0043	0.0033	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Isopropylbenzene	mg/L	NE	NE	0.0018	0.001	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010
Methyl tert-Butyl Ether	mg/L	5	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Naphthalene	mg/L	2.67	NE	0.005	0.0034	0.0008	<0.0010	<0.0010	0.0011	<0.0010	<0.0010
n-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	mg/L	NE	NE	0.0009	0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
sec-Butylbenzene	mg/L	NE	NE	<0.0010	0.0001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Styrene	mg/L	2.2	50	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
tert-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

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trans-1,2-Dichloroethene	mg/L	2.8	79	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Chloride	mg/L	0.002	NE	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	0.0024	0.0017	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Xylene P,M	mg/L	NE	NE	0.0009	0.0006	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Xylenes (Total)	mg/L	NE	NE	0.0032	0.0023	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

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FIGURES

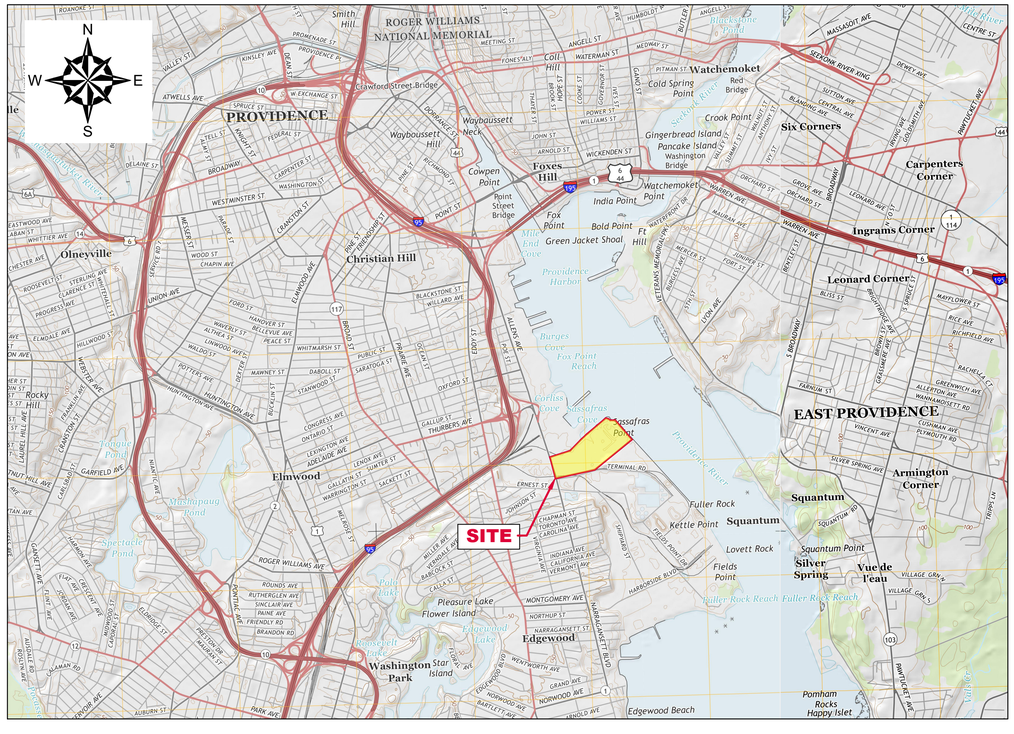
NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
FORMER MANUFACTURED GAS PLANT (MGP)
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND
JANUARY 2021

PREPARED FOR:

nationalgrid

PREPARED BY:

GZA GEOENVIRONMENTAL, INC.
188 VALLEY STREET, SUITE 300
PROVIDENCE, RHODE ISLAND 02909



LOCUS MAP

SOURCE: USGSSTORE.GOV

0 1000' 2000' 4000' 6000'

SCALE: 1 INCH = 2000 FEET

INDEX OF DRAWINGS	
SHEET #	TITLE
C1	TITLE SHEET AND INDEX TO DRAWINGS
N1	GENERAL NOTES AND LEGEND
2	OVERALL AERIAL
3A	EXPLORATION LOCATION PLAN - CNG FACILITY AND NATURAL GAS REGULATION FACILITY
3B	EXPLORATION LOCATION PLAN - LNG FACILITY AND HOLCIM CEMENT FACILITY
4	GROUNDWATER MONITORING WELLS
5	SHALLOW GROUNDWATER CONTOURS (MAY 2016)
6	HISTORICAL NAPL THICKNESS (≥0.01 FEET) (2001-2017)
7A	2014 NAPL AND GROUNDWATER ANALYTICAL DATA
7B	2015 NAPL AND GROUNDWATER ANALYTICAL DATA
7C	2016 NAPL AND GROUNDWATER ANALYTICAL DATA
7D	2017 NAPL AND GROUNDWATER ANALYTICAL DATA

FINAL
ISSUED FOR PERMITTING

LEGEND:

- PROPERTY LINE
- INTERIOR PROPERTY LINE
- EXISTING BUILDING
- UTILITY POLE
- LIGHT POLE
- CATCH BASIN FRAME AND GRATE
- STEEL POST
- PILING
- EDGE OF WATER
- FENCE
- RAILROAD TRACKS
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- SITE AREA BOUNDARY
- PAVEMENT
- CONCRETE
- HISTORIC STRUCTURE OR FEATURE
- 200 FOOT CRMC BUFER

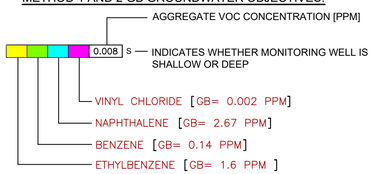
EXPLORATION LEGEND:

- GZ-314 S/D — ENVIRONMENTAL BORING OBSERVED BY GZA IN 2014
- VHB-7 — ENVIRONMENTAL BORING OBSERVED BY VHB IN 2002 AND 2003
- F47 — ENVIRONMENTAL BORING OBSERVED BY ESS IN 1999 AND 2000
- 1 — ENVIRONMENTAL BORING OBSERVED BY ESS IN 1999
- RHB-1 — ENVIRONMENTAL BORING OBSERVED BY ESS IN 1998
- RCA-40 — ENVIRONMENTAL BORING OBSERVED BY RCA BETWEEN 1994-1996
- TP-301 — ENVIRONMENTAL TEST PITS OBSERVED BY GZA IN 2014
- VHB TP-101 — ENVIRONMENTAL TEST PITS OBSERVED BY VHB IN 2008
- TP-1 — ENVIRONMENTAL TEST PITS OBSERVED BY VHB IN 2002
- ETP-4 — ENVIRONMENTAL TEST PITS OBSERVED BY RCA IN 1995 AND 1996
- SS-301 — SURFACE SOIL SAMPLE COLLECTED BY GZA IN 2014
- VHB-SS2 — SURFACE SOIL SAMPLE COLLECTED BY VHB IN 2003
- SU-6 No.9 — SURFACE SOIL SAMPLE COLLECTED BY RCA IN 1994 AND 1995
- RSS-1 — SEDIMENT SAMPLE COLLECTED BY RCA IN 1994 AND 1995
- CHES-RW-A — RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2017
- RW-1 — RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2014
- CHES-RW-1 — RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
- ESS-RW-1 — RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000
- B-201 — GEOTECHNICAL BORING PERFORMED BY GOLDER ASSOCIATES IN 2016
- GZ-3 — GEOTECHNICAL BORING BY GZA IN 2016
- PP-1 — GEOTECHNICAL BORING PERFORMED BY PROCESS PIPELINE SERVICES IN 2015
- GZ-401 — GEOTECHNICAL BORING OBSERVED BY GZA IN 2015
- SB-01 — GEOTECHNICAL BORING OBSERVED BY WEIDLINGER ASSOCIATES, INC. (WAI) IN 2015
- GZA-206 — GEOTECHNICAL BORING OBSERVED BY GZA IN 2005
- GZ-1 — GEOTECHNICAL BORING OBSERVED BY GZA IN 2004
- SWBL13 — GEOTECHNICAL BORING OBSERVED BY SWEC IN 1995
- B-207 — GEOTECHNICAL BORING PERFORMED FOR PROVIDENCE GAS COMPANY IN 1973
- B-25 — GEOTECHNICAL BORING OBSERVED BY HALEY & ALDRICH IN 1971 AND 1972
- PGC-8 — GEOTECHNICAL BORING PERFORMED FOR PROVIDENCE GAS COMPANY IN 1912
- ENVIRONMENTAL TEST PIT OBSERVED BY ESS IN 1999 AND 2000

MONITORING WELL LEGEND:

- GZ-401 — MONITORING WELL INSTALLED BY GZA IN 2015
- GZ-314 S/D — MONITORING WELL INSTALLED BY GZA IN 2014
- GZA-206 — MONITORING WELL INSTALLED BY GZA IN 2005
- VHB-7 — MONITORING WELL INSTALLED BY VHB IN 2002 AND 2003
- F47 — TEMPORARY WELL POINT INSTALLED BY ESS IN 1999 AND 2000
- 1 — TEMPORARY WELL POINT INSTALLED BY ESS IN 1999
- RCA-40 — MONITORING WELL INSTALLED BY RCA IN 1996
- CHES-RW-A — RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2017
- RW-1 — RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2014
- CHES-RW-1 — RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
- ESS-RW-1 — RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000
- ACTIVE MONITORING WELLS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS (PRE-2017)
- 2016 DECOMMISSIONED MONITORING WELLS
- TEMPORARY MONITORING WELL-ASSUMED DESTROYED
- RECOVERY WELLS
- DETECTED LNAPL THICKNESS (≥0.01 FEET)
- DETECTED DNAPL THICKNESS (≥0.01 FEET)
- INDICATES THAT THE MONITORING WELL IS PROPOSED TO BE SAMPLED AS PART OF THE 2018 SAMPLING PROGRAM
- MONITORING WELL SAMPLED IN 2014, 2015, 2016 AND/OR 2017
- 5 — SHALLOW GROUNDWATER ELEVATION CONTOUR (NAVD 1988) ON MAY 18, 2016.
- 4 — INFERRED SHALLOW GROUNDWATER ELEVATION CONTOUR (NAVD 1988) ON MAY 18, 2016.
- 2.93S / 2.56D — GROUNDWATER ELEVATION OBSERVED ON MAY 18, 2016 (IN FEET RELATIVE TO NAVD 1988)
- S — INDICATES THE MONITORING WELL SCREEN IS SHALLOW (GENERALLY AT THE NATURAL WATER TABLE)
- D — INDICATES THE MONITORING WELL SCREEN IS DEEP (GENERALLY DEEPER THAN THE NATURAL WATER TABLE)

EXCEEDANCES OF THE RIDEM METHOD 1 AND 2 GB GROUNDWATER OBJECTIVES:



- PRESENCE OF MEASURABLE NAPL (≥0.01 FT)
- [S/D] — INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP
- ND — NOT DETECTED

GENERAL NOTES:

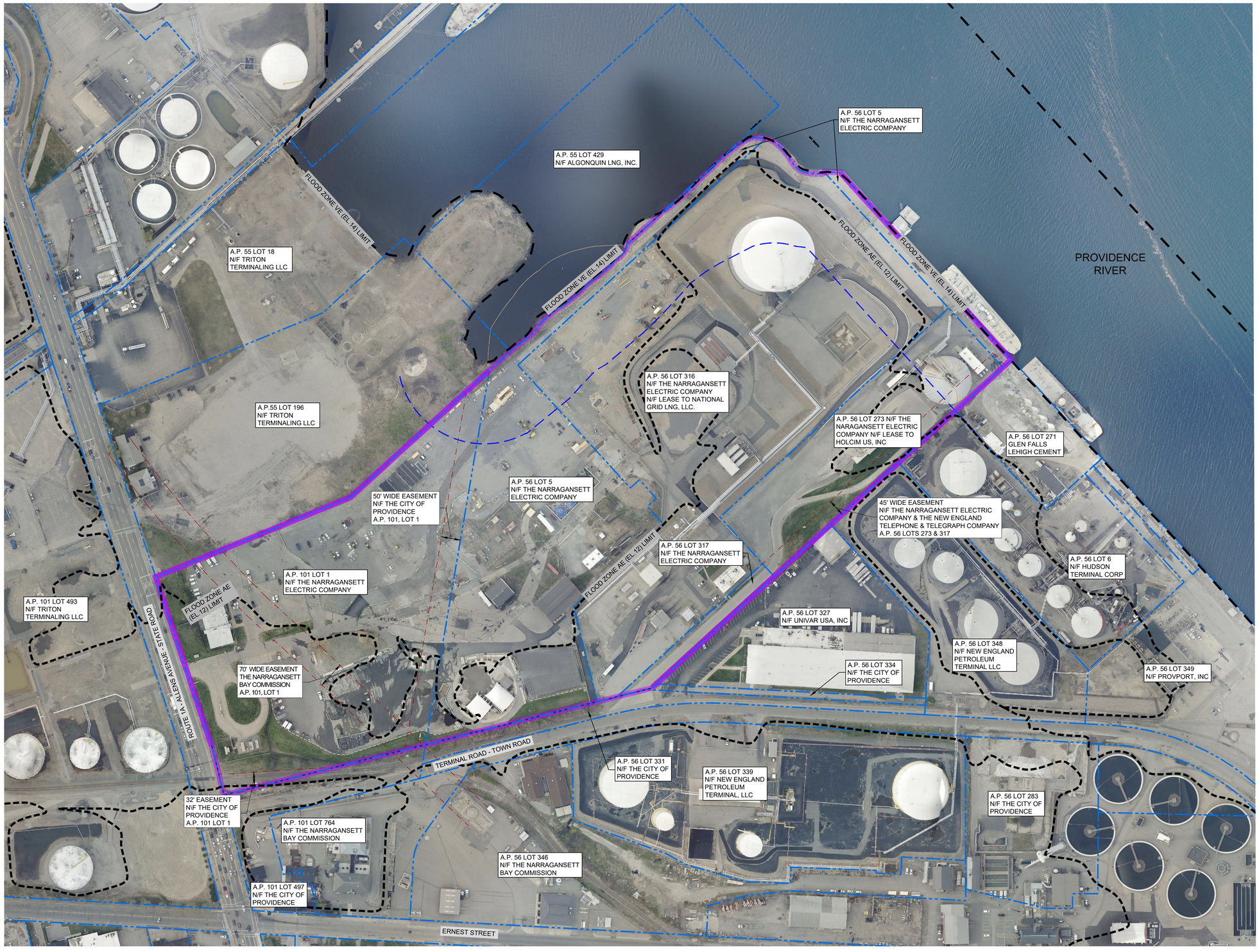
1) EXISTING CONDITIONS BASE MAP DEVELOPED FROM THE FOLLOWING:
   - ELECTRONIC CAD FILE "ACAD-7257PL.DWG" PROVIDED BY VANASSE HANGEN BRUSTLIN (VHB) ENTITLED "EXISTING CONDITIONS PLAN," PROJECT TITLE "NATIONAL GRID LNG TERMINAL ROAD LNG FACILITY" DATED MARCH 10, 2014, ORIGINAL SCALE 1" = 50', DRAWING NO. SV-1 THROUGH SV-3 AND AERIAL MAPPING BY WSP TRANSPORTATION AND INFRASTRUCTURE DATED JANUARY 15, 2014 PREPARED FOR NATIONAL GRID LAND SURVEYING DEPARTMENT, WALTHAM, MASSACHUSETTS AND CAD FILE NO. 09303023.052-1.DWG
   - ELECTRONIC CAD FILE "3654 642 ALLENS AVE ASBUILT.DWG", PREPARED BY A-PLUS CONSTRUCTION SERVICES CORPORATION FOR CHARTER ENVIRONMENTAL, TITLED "AS-BUILT PLAN," SHEET 1 TITLED "SUB GRADE" AND SHEET 2 TITLED "FINISH GRADE," DATED DECEMBER 16, 2016 AND PROVIDED TO GZA ON MARCH 23, 2017
   - ON-SITE INVESTIGATIONS AND SURVEYS BY GZA PERSONNEL DURING VARIOUS SITE VISITS BETWEEN 2011 AND 2017.
2) PROPERTY LINES AND LOT INFORMATION ESTABLISHED FROM INFORMATION PROVIDED ON A DRAWING ENTITLED "EXISTING CONDITIONS PLAN," PROJECT TITLE "NATIONAL GRID LNG TERMINAL ROAD LNG FACILITY" DATED MARCH 10, 2014, ORIGINAL SCALE 1" = 50', DRAWING NO. SV-1 THROUGH SV-3.
3) EXPLORATION LOCATION PLANS WERE DEVELOPED FROM THE FOLLOWING:
   - SITE PLANS PROVIDED BY RESOURCE CONTROLS ASSOCIATES (RCA) IN THE RIDEM-SUBMITTED JULY 5, 1994 "SITE CHARACTERIZATION PLAN" PREPARED ON BEHALF OF THE PROVIDENCE GAS COMPANY. PLANS PROVIDED BY NATIONAL GRID.
   - SITE PLANS PROVIDED BY RCA IN THE RIDEM-SUBMITTED JUNE 28, 1996 "PHASE IB FIELD CHARACTERIZATION INVESTIGATION" PREPARED ON BEHALF OF THE PROVIDENCE GAS COMPANY. PLANS PROVIDED BY NATIONAL GRID.
   - SITE PLANS PROVIDED BY ENVIRONMENTAL SCIENCE SERVICES, INC. (ESS) IN THE RIDEM-SUBMITTED DECEMBER 4, 1998 "REMEDIAL ACTION WORK PLAN (RAWP)" PREPARED ON BEHALF OF THE PROVIDENCE GAS COMPANY. PLANS PROVIDED BY NATIONAL GRID.
   - SITE PLANS PROVIDED BY ESS IN THE RIDEM-SUBMITTED OCTOBER 21, 1999 "SUBSURFACE INVESTIGATION AND PROPOSED ALGONQUIN GENERATOR CONSTRUCTION AREA" PREPARED ON BEHALF OF THE PROVIDENCE GAS COMPANY. PLANS PROVIDED BY NATIONAL GRID.
   - SITE PLANS PROVIDED BY VHB IN THE RIDEM-SUBMITTED NOVEMBER 2002 "REMEDIAL ACTION CLOSURE REPORT" PREPARED ON BEHALF OF THE NEW ENGLAND GAS COMPANY. PLANS PROVIDED BY NATIONAL GRID.
   - SITE PLANS PROVIDED BY VHB IN THE RIDEM-SUBMITTED APRIL 2003 "SITE INVESTIGATION REPORT" PREPARED ON BEHALF OF THE NEW ENGLAND GAS COMPANY. PLANS PROVIDED BY NATIONAL GRID.
   - SITE PLANS PROVIDED BY VHB IN THE RIDEM-SUBMITTED JANUARY 26, 2009 "OXIDE BOX INVESTIGATION TECHNICAL MEMORANDUM" PREPARED ON BEHALF OF NATIONAL GRID. PLANS PROVIDED BY NATIONAL GRID.
   - FIGURE 3 "EXPLORATION LOCATION PLAN" PREPARED BY GZA GEOENVIRONMENTAL, INC. (GZA) ON BEHALF OF CHICAGO BRIDGE AND IRON (CB&I) IN JULY 2005. PLANS PROVIDED BY NATIONAL GRID.
   - FIGURE 35 "TEST BORINGS UNDER SASSAFRAS POINT PLAT" DATED JUNE 5, 1912 PREPARED BY THE PROVIDENCE GAS COMPANY. PLANS PROVIDED BY NATIONAL GRID.
   - DRAWING 3 "WHARF FACILITIES - BULKHEAD REBUILDING - CROSS SECTIONS" DATED JANUARY 11, 1973 PREPARED BY PARSONS, BRINCKERHOFF, QUADE AND DOUGLAS ON BEHALF OF THE PROVIDENCE GAS COMPANY. PLANS PROVIDED BY NATIONAL GRID.
   - FIGURE 2 "EXPLORATION LOCATION PLAN," DATED SEPTEMBER 18, 2015, BY WEIDLINGER ASSOCIATES, INC. (WEI) ON BEHALF OF KIEWIT CORPORATION (KIEWIT). PLAN PROVIDED BY NATIONAL GRID.
   - DRAWING 5153_C00_(SENT OUT 05-03-16).DWG BY PROCESS PIPELINE SERVICES OF WALPOLE MASSACHUSETTS TITLED "SITE PLAN" SHEET A02, DATED APRIL 27, 2016 AND PROVIDED BY NATIONAL GRID ON MAY 6, 2016.
   - FIGURE 2 "EXPLORATION LOCATION PLAN," DATED MARCH 22, 2016, BY GOLDER ASSOCIATES ON BEHALF OF CHI ENGINEERING SERVICES, INC. PLAN PROVIDED BY NATIONAL GRID.
   - ELECTRONIC CAD FILE "ACAD-7257PL.DWG" PROVIDED BY VANASSE HANGEN BRUSTLIN (VHB) ENTITLED "EXISTING CONDITIONS PLAN," PROJECT TITLE "NATIONAL GRID LNG TERMINAL ROAD LNG FACILITY" DATED MARCH 10, 2014, ORIGINAL SCALE 1" = 50', DRAWING NO. SV-1 THROUGH SV-3 AND AERIAL MAPPING BY WSP TRANSPORTATION AND INFRASTRUCTURE DATED JANUARY 15, 2014 PREPARED FOR NATIONAL GRID LAND SURVEYING DEPARTMENT, WALTHAM, MASSACHUSETTS AND CAD FILE NO. 09303023.052-1.DWG. PLANS PROVIDED BY NATIONAL GRID.
   - ON-SITE INVESTIGATIONS AND SURVEYS BY GZA PERSONNEL DURING VARIOUS SITE VISITS BETWEEN 2011 AND 2017.
4) THE LOCATION OF THE EXPLORATIONS AND MONITORING WELLS AT THE SITE WERE APPROXIMATELY DETERMINED AND HAVE BEEN ALIGNED AND ADJUSTED FOR THE "BEST FIT" AND THESE DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
5) HORIZONTAL DATUM IS BASED ON NAD 1983 FROM BASE MAPPING PROVIDED BY VHB.
6) VERTICAL DATUM IS BASED ON NAVD 1988 FROM BASE MAPPING PROVIDED BY VHB.
7) APPROXIMATE HISTORICAL STRUCTURE/EQUIPMENT LOCATIONS AND DATES WERE OBTAINED FROM THE FOLLOWING SOURCES:
   - CERTIFIED SANBORN MAPS DATED: 1950, 1956, 1972, 1977 AND 1982
   - AERIAL ORTHOPHOTOGRAPHIC IMAGES OBTAINED FROM RIGIS: 1939, 1951, 1962, 1972, 1976, 1981, 1988, 1992, 1995, 1997, 2002, 2008
   - SITE PLANS PROVIDED BY RESOURCE CONTROLS ASSOCIATES (RCA) IN THE RIDEM-SUBMITTED JULY 5, 1994 "SITE CHARACTERIZATION PLAN" PREPARED ON BEHALF OF THE PROVIDENCE GAS COMPANY. PLANS PROVIDED BY NATIONAL GRID.
   - HISTORIC SITE PLAN "GENERAL PLAN OF WORKS, PROVIDENCE GAS COMPANY, SASSAFRAS POINT PLANT, PROVIDENCE, RHODE ISLAND," UNDATED. PLANS PROVIDED BY NATIONAL GRID.
8) THE SITE HAS BEEN THE LOCATION OF NUMEROUS REMEDIAL ACTIONS. THIS PLAN SET DOES NOT PRESENT THE LOCATIONS OF ANY CONFIRMATORY SAMPLES THAT HAVE BEEN COLLECTED AT THE SITE. THIS PLAN SET MAY INCLUDE LOCATIONS THAT HAVE BEEN FULLY EXCAVATED AND THE PRESENTED EXPLORATIONS MAY NOT BE TRUE TO CURRENT CONDITIONS.
9) THIS PLAN SET DOES NOT PRESENT THE LOCATIONS OF SAMPLES THAT WERE COLLECTED FOR GEOTECHNICAL PURPOSES ONLY. THIS INCLUDES CONE PENETROMETER TESTING SAMPLES AND TEST PITS CONDUCTED WITH NO SOIL DESCRIPTIONS OR ENVIRONMENTAL SAMPLES COLLECTED. HOWEVER, THE LOCATIONS OF KNOWN GEOTECHNICAL BORINGS (PRESENTED ON PLANS PROVIDED BY NATIONAL GRID) ARE PRESENTED IN THIS PLAN SET.
10) LOGS FROM GEOTECHNICAL BORINGS SERIES PGC-1 (1912 GEOTECHNICAL BORINGS PERFORMED FOR THE PROVIDENCE GAS COMPANY) AND SERIES B-200 (1973 GEOTECHNICAL BORINGS PERFORMED FOR THE PROVIDENCE GAS COMPANY) CONSIST OF FENCE DIAGRAMS ONLY.

FINAL
ISSUED FOR PERMITTING

NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

GENERAL NOTES AND LEGEND

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: nationalgrid	
PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING N1
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 2 OF 12



LEGEND:

- PROPERTY LINES
- 642 ALLENS AVENUE FORMER MGP SITE
- CRMC 200-FOOT JURISDICTIONAL LINE
- EASEMENT AREA
- FLOOD ZONE VE (EL. 14) LIMIT
- FLOOD ZONE AE (EL. 12) LIMIT

REFERENCE NOTES:

1. BASE MAP DEVELOPED FROM RHODE ISLAND'S RIGIS AERIAL IMAGERY PUBLISHED IN APRIL 2019.
2. PROPERTY LINES AND LOT INFORMATION ESTABLISHED FROM INFORMATION PROVIDED ON A DRAWING ENTITLED "EXISTING CONDITIONS PLAN," PROJECT TITLE "NATIONAL GRID LNG TERMINAL ROAD LNG FACILITY" DATED MARCH 10, 2014, ORIGINAL SCALE 1" = 50', DRAWING NO. SV-1 THROUGH SV-3.
3. EASEMENT LOCATIONS WERE DEVELOPED FROM THE FOLLOWING:
   - ELECTRONIC CAD FILE "ACAD-7257PL.DWG" PROVIDED BY VANASSE HANGEN BRUSTLIN (VHB) ENTITLED "EXISTING CONDITIONS PLAN," PROJECT TITLE "NATIONAL GRID LNG TERMINAL ROAD LNG FACILITY" DATED MARCH 10, 2014, ORIGINAL SCALE 1" = 50', DRAWING NO. SV-1 THROUGH SV-3 AND AERIAL MAPPING BY WSP TRANSPORTATION AND INFRASTRUCTURE DATED JANUARY 15, 2014 PREPARED FOR NATIONAL GRID LAND SURVEYING DEPARTMENT, WALTHAM, MASSACHUSETTS AND CAD FILE NO. 09303023.052-1.DWG. PLANS PROVIDED BY NATIONAL GRID.
   - DESCRIPTIONS PROVIDED IN THE CITY OF PROVIDENCE DEED BOOK (BK) 470 PAGES 224 - 229, BK 561 PAGES 326 - 328, BK 1111 PAGES 752 -756 AND BK 5249 PAGES 219 - 322.
4. FLOOD ZONE HAZARD AREA DATA WERE PROVIDED BY RHODE ISLAND GEOGRAPHIC INFORMATION SYSTEM (RIGIS) AND DERIVED FROM STATEWIDE DIGITAL FLOOD INSURANCE RATE MAP (DFIRM) DATABASE, ORIGINALLY PUBLISHED BY FEMA IN OCTOBER 2015.
5. SITE BOUNDARIES ARE APPROXIMATE.

FINAL
ISSUED FOR PERMITTING

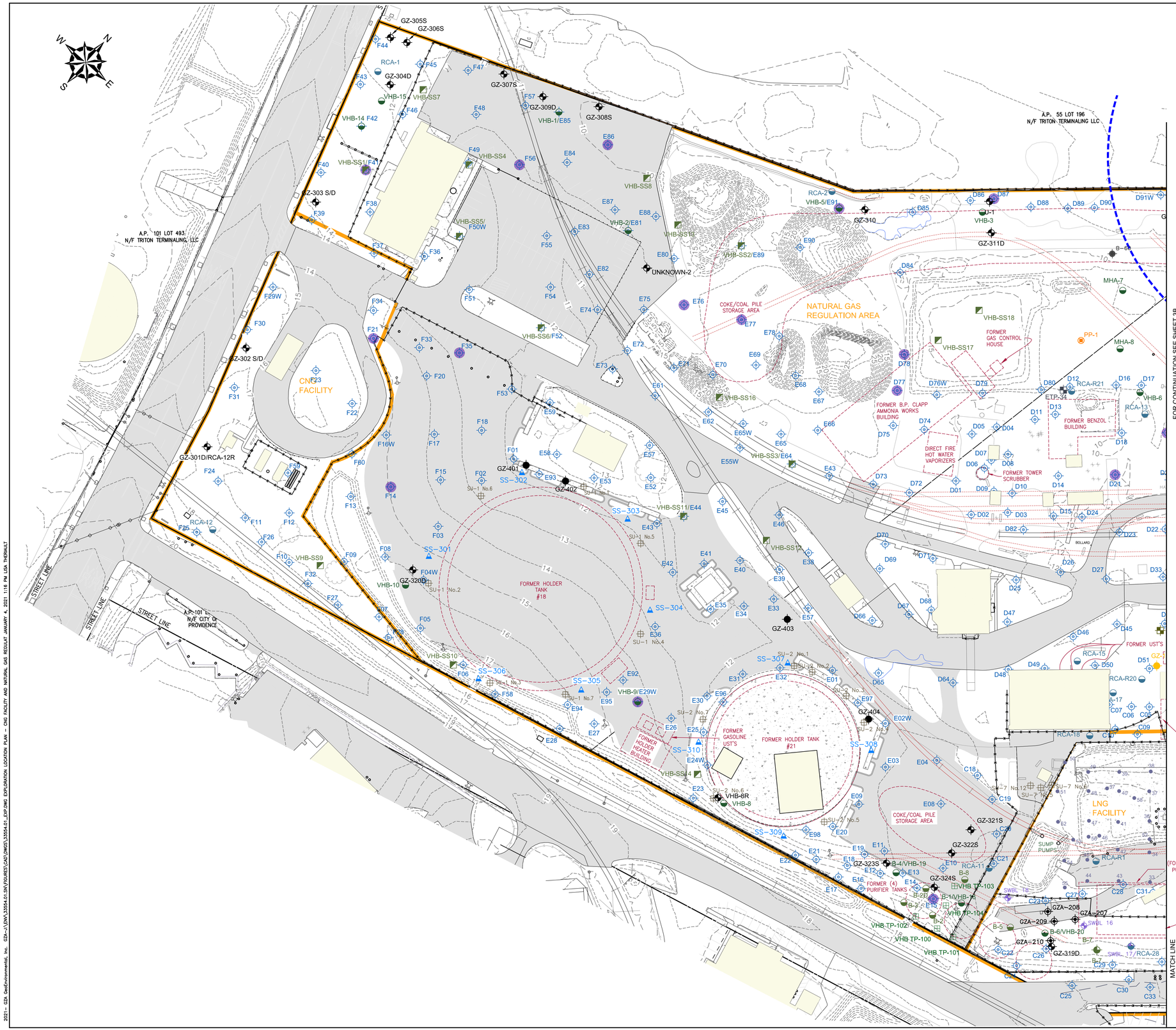
N
W E
S

0 60' 120' 240' 360'
SCALE IN FEET 1" = 120'

NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

OVERALL AERIAL

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: nationalgrid	
PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING 2
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 3 OF 12



EXPLORATION LEGEND:

GZ-314 S/D	ENVIRONMENTAL BORING OBSERVED BY GZA IN 2014
VHB-7	ENVIRONMENTAL BORING OBSERVED BY VHB IN 2002 AND 2003
F47	ENVIRONMENTAL BORING OBSERVED BY ESS IN 1999 AND 2000
1	ENVIRONMENTAL BORING OBSERVED BY ESS IN 1999
RHB-1	ENVIRONMENTAL BORING OBSERVED BY ESS IN 1998
RCA-40	ENVIRONMENTAL BORING OBSERVED BY RCA BETWEEN 1994-1996
TP-301	ENVIRONMENTAL TEST PITS OBSERVED BY GZA IN 2014
VHB TP-101	ENVIRONMENTAL TEST PITS OBSERVED BY VHB IN 2008
TP-1	ENVIRONMENTAL TEST PITS OBSERVED BY VHB IN 2002
ETP-4	ENVIRONMENTAL TEST PITS OBSERVED BY RCA IN 1995 AND 1996
SS-301	SURFACE SOIL SAMPLE COLLECTED BY GZA IN 2014
VHB-SS2	SURFACE SOIL SAMPLE COLLECTED BY VHB IN 2003
SU-6 No.9	SURFACE SOIL SAMPLE COLLECTED BY RCA IN 1994 AND 1995
RSS-1	SEDIMENT SAMPLE COLLECTED BY RCA IN 1994 AND 1995
RW-1	RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2014
CHES-RW-1	RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
ESS-RW-1	RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000
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SB-01	GEOTECHNICAL BORING OBSERVED BY WEIDLINGER ASSOCIATES, INC. (WAI) IN 2015
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GZ-3	GEOTECHNICAL BORING BY GZA IN 2016
PP-1	GEOTECHNICAL BORING PERFORMED BY PROCESS PIPELINE SERVICES IN 2015
GZA-206	GEOTECHNICAL BORING OBSERVED BY GZA IN 2005
GZ-1	GEOTECHNICAL BORING OBSERVED BY GZA IN 2004
SWBL13	GEOTECHNICAL BORING OBSERVED BY SWEC IN 1995
B-207	GEOTECHNICAL BORING PERFORMED FOR PROVIDENCE GAS COMPANY IN 1973
B-25	GEOTECHNICAL BORING OBSERVED BY HALEY & ALDRICH IN 1971 AND 1972
PGC-8	GEOTECHNICAL BORING PERFORMED FOR PROVIDENCE GAS COMPANY IN 1912
	ENVIRONMENTAL TEST PIT OBSERVED BY ESS IN 1999 AND 2000

LEGEND:

- PROPERTY LINE
- SITE AREA BOUNDARY
- INTERIOR PROPERTY LINE
- EXISTING BUILDING
- UTILITY POLE / STEEL POST
- LIGHT POLE / PILING
- EDGE OF WATER
- FENCE
- RAILROAD TRACKS
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- HISTORIC STRUCTURE OR FEATURE
- PAVEMENT
- CONCRETE
- HYDRANT
- 200 FOOT CRMC SETBACK

NOTE:

THIS SHEET IS SUBJECT TO SHEET N1 GENERAL NOTES.

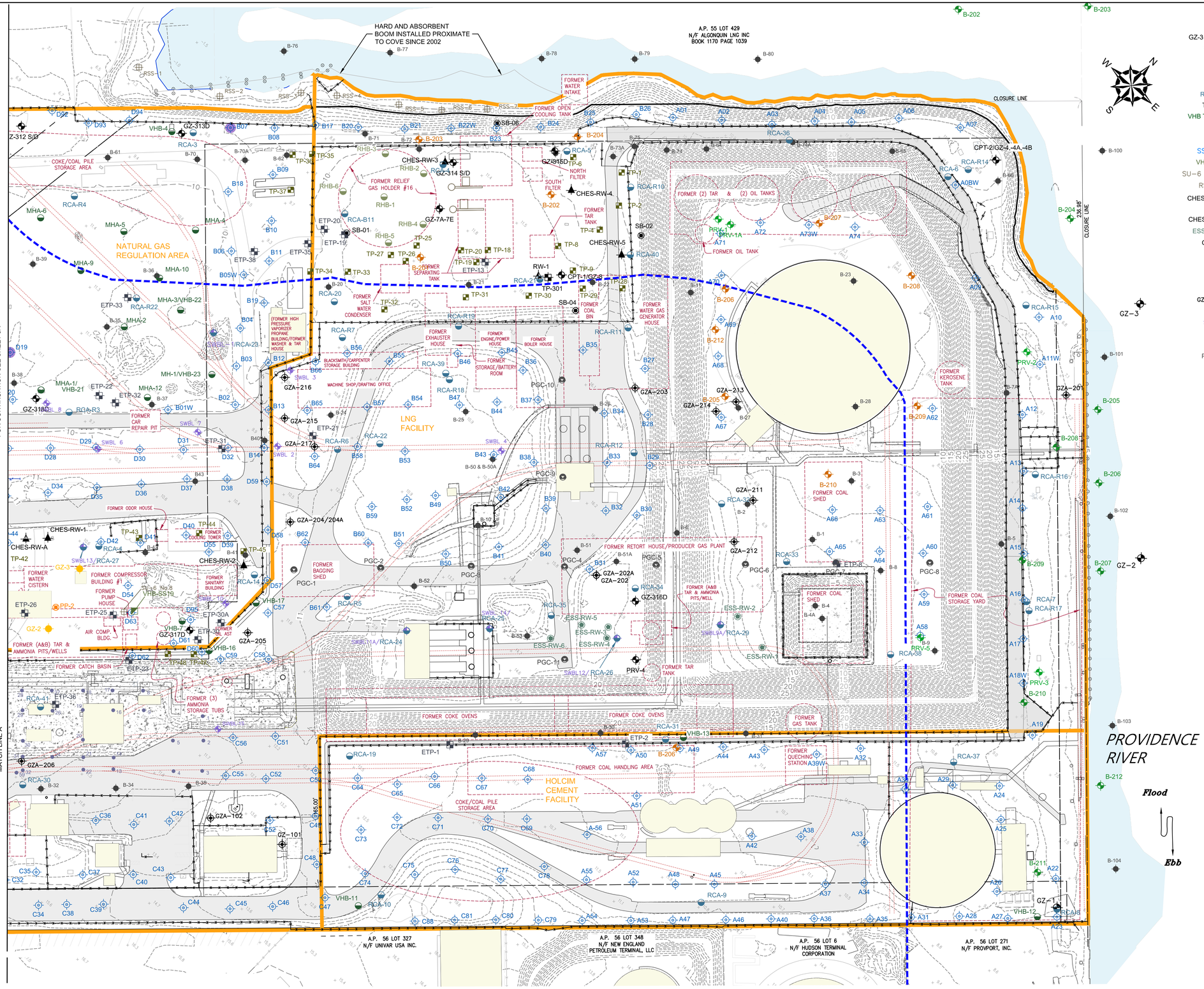
FINAL
ISSUED FOR PERMITTING

0 25 50 100 150
SCALE IN FEET 1" = 50'

NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

EXPLORATION LOCATION PLAN - CNG FACILITY AND NATURAL GAS REGULATION FACILITY

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: nationalgrid	
PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING 3A
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 4 OF 12



EXPLORATION LEGEND:

GZ-314 S/D	ENVIRONMENTAL BORING OBSERVED BY GZA IN 2014
VHB-7	ENVIRONMENTAL BORING OBSERVED BY VHB IN 2002 AND 2003
F47	ENVIRONMENTAL BORING OBSERVED BY ESS IN 1999 AND 2000
1	ENVIRONMENTAL BORING OBSERVED BY ESS IN 1999
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CHES-RW-1	RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
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SB-01	GEOTECHNICAL BORING OBSERVED BY WEIDLINGER ASSOCIATES, INC. (WAI) IN 2015
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PGC-8	GEOTECHNICAL BORING PERFORMED FOR PROVIDENCE GAS COMPANY IN 1912
	ENVIRONMENTAL TEST PIT OBSERVED BY ESS IN 1999 AND 2000

LEGEND:

- PROPERTY LINE
- SITE AREA BOUNDARY
- INTERIOR PROPERTY LINE
- EXISTING BUILDING
- UTILITY POLE / STEEL POST
- LIGHT POLE / PILING
- EDGE OF WATER
- FENCE
- RAILROAD TRACKS
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- HISTORIC STRUCTURE OR FEATURE
- PAVEMENT
- CONCRETE
- HYDRANT
- 200 FOOT CRMC SETBACK

NOTE:

THIS SHEET IS SUBJECT TO SHEET N1 GENERAL NOTES.

FINAL
ISSUED FOR PERMITTING

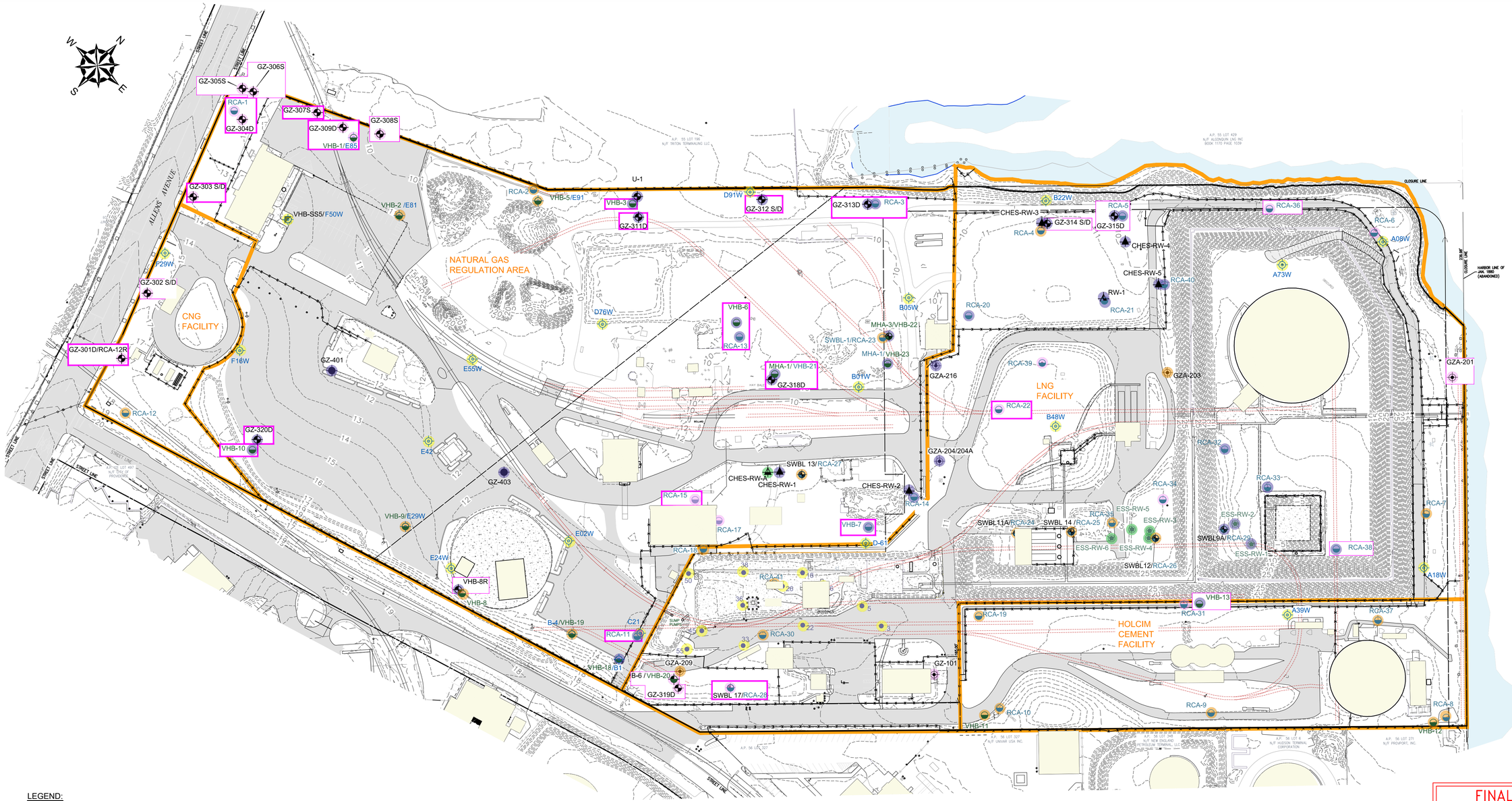
SCALE IN FEET 1" = 50'
0 25 50 100 150

NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

EXPLORATION LOCATION PLAN - LNG FACILITY AND HOLCIM CEMENT FACILITY

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com
PREPARED FOR: nationalgrid

PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING 3B
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 5 OF 12



LEGEND:

- PROPERTY LINE
- SITE AREA BOUNDARY
- INTERIOR PROPERTY LINE
- EXISTING BUILDING
- UTILITY POLE / STEEL POST
- LIGHT POLE / PILING
- EDGE OF WATER
- FENCE
- RAILROAD TRACKS
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- PAVEMENT
- CONCRETE

MONITORING WELL LEGEND:

GZ-401	MONITORING WELL INSTALLED BY GZA IN 2015
GZ-314 S/D	MONITORING WELL INSTALLED BY GZA IN 2014
GZA–206	MONITORING WELL INSTALLED BY GZA IN 2005
VHB-7	MONITORING WELL INSTALLED BY VHB IN 2002 AND 2003
F47	TEMPORARY WELL POINT INSTALLED BY ESS IN 1999 AND 2000
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CHES-RW-1	RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
ESS-RW-1	RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000

MONITORING WELL LEGEND CONTINUED:

- ACTIVE MONITORING WELLS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS (PRE-2016)
- 2016 DECOMMISSIONED MONITORING WELLS
- TEMPORARY MONITORING WELL-ASSUMED DESTROYED
- RECOVERY WELLS
- MONITORING WELL SAMPLED IN 2014, 2015, 2016 AND/OR 2017

NOTES:

THIS SHEET IS SUBJECT TO SHEET N1 GENERAL NOTES.

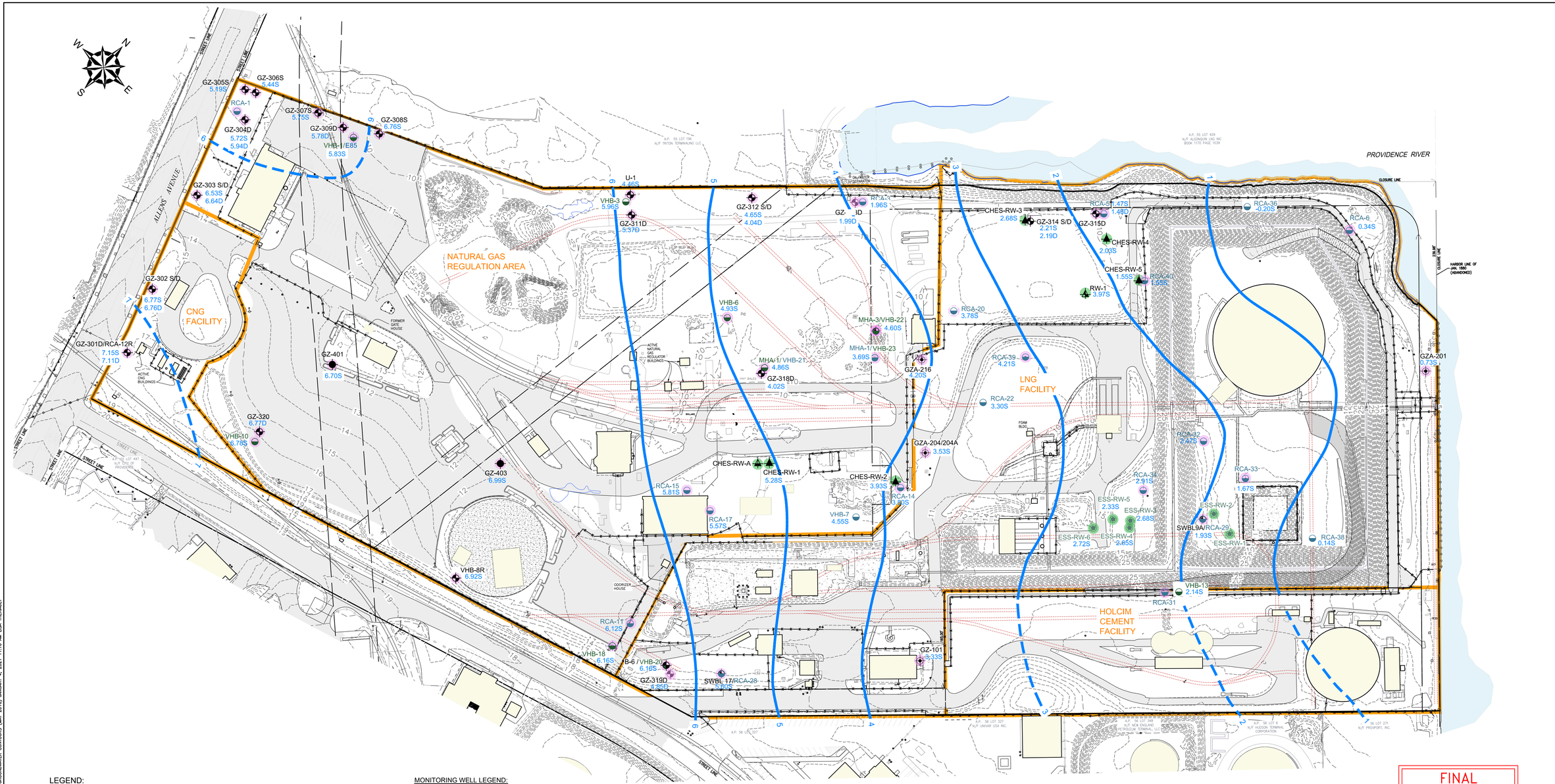
FINAL
ISSUED FOR PERMITTING

0 40 80 160 240
SCALE IN FEET 1" = 80'

NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

GROUNDWATER MONITORING WELLS

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: nationalgrid	
PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING 4
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 6 OF 12



LEGEND:

- PROPERTY LINE
- INTERIOR PROPERTY LINE
- EXISTING BUILDING
- UTILITY POLE
- STEEL POST
- LIGHT POLE
- PILING
- EDGE OF WATER
- FENCE
- RAILROAD TRACKS
- 10 EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- 11 EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- PAVEMENT
- CONCRETE

MONITORING WELL LEGEND:

- GZ-401 MONITORING WELL INSTALLED BY GZA IN 2015
- GZ-314 S/D MONITORING WELL INSTALLED BY GZA IN 2014
- GZA–206 MONITORING WELL INSTALLED BY GZA IN 2005
- VHB-7 MONITORING WELL INSTALLED BY VHB IN 2002 AND 2003
- F47 TEMPORARY WELL POINT INSTALLED BY ESS IN 1999 AND 2000
- 1 TEMPORARY WELL POINT INSTALLED BY ESS IN 1999
- RCA-40 MONITORING WELL INSTALLED BY RCA IN 1996
- CHES-RW-A RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2017
- RW-1 RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2014
- CHES-RW-1 RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
- ESS-RW-1 RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000
- 2.93S / 2.56D GROUNDWATER ELEVATION OBSERVED ON MAY 18, 2016 (IN FEET RELATIVE TO NAVD 1988)
- S INDICATES THE MONITORING WELL SCREEN IS SHALLOW
- D INDICATES THE MONITORING WELL SCREEN IS DEEP

MONITORING WELL LEGEND CONTINUED:

- MONITORING WELLS
- RECOVERY WELLS
- 5 SHALLOW GROUNDWATER ELEVATION CONTOUR (NAVD 1988) ON MAY18, 2016
- 4 INFERRED SHALLOW GROUNDWATER ELEVATION CONTOUR (NAVD 1988) ON MAY 18, 2016

GROUNDWATER CONTOUR NOTES:

1. SHALLOW GROUNDWATER CONTOURS (NAVD 1988) ARE BASED ON DATA FROM WIDELY SPACED EXPLORATIONS AND MAY NOT REFLECT ACTUAL SUBSURFACE CONDITIONS. WATER LEVEL READINGS WERE ON MAY 18, 2016
2. WATER LEVEL READINGS HAVE BEEN MADE IN THE MONITORING WELLS AT THE TIMES AND UNDER THE CONDITIONS STATED IN THE TEXT OF THIS REPORT. THESE DATA HAVE BEEN REVIEWED AND INTERPRETATIONS MADE IN THE TEXT OF THIS REPORT. HOWEVER, FLUCTUATIONS IN THE LEVEL OF THE GROUNDWATER MAY OCCUR DUE TO VARIATIONS IN RAINFALL, TEMPERATURE AND OTHER FACTORS.

NOTES:

THIS SHEET IS SUBJECT TO SHEET N1 GENERAL NOTES.

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642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

SHALLOW GROUNDWATER CONTOURS (MAY 2016)

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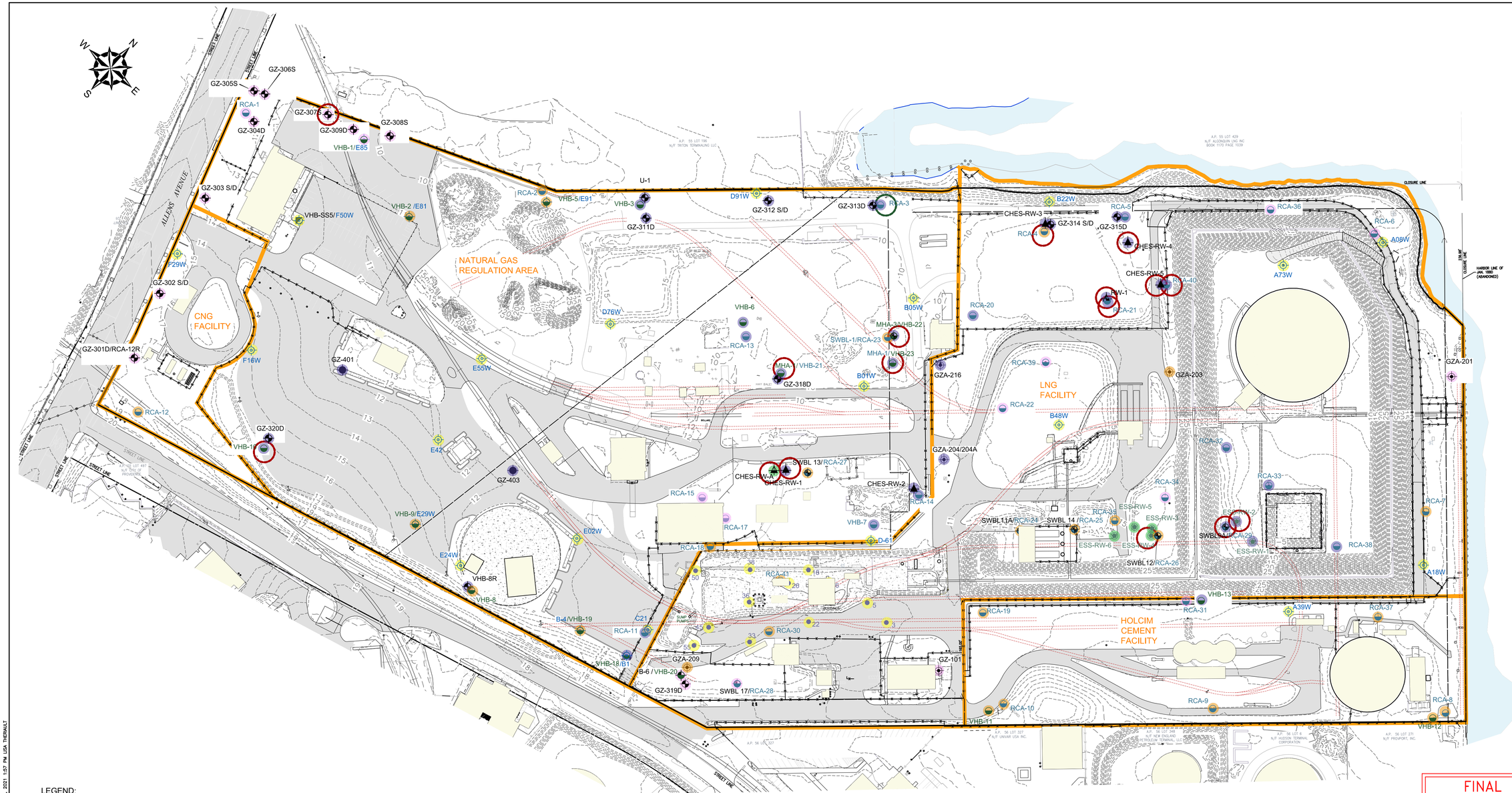
PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING 5
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 7 OF 12



FINAL
ISSUED FOR PERMITTING

0 40 80 160 240
SCALE IN FEET 1" = 80'

LEGEND:

- PROPERTY LINE
- SITE AREA BOUNDARY
- INTERIOR PROPERTY LINE
- EXISTING BUILDING
- UTILITY POLE
- STEEL POST
- LIGHT POLE
- PILING
- EDGE OF WATER
- FENCE
- RAILROAD TRACKS
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- PAVEMENT
- CONCRETE

MONITORING WELL LEGEND:

- GZ-401 — MONITORING WELL INSTALLED BY GZA IN 2015
- GZ-314 S/D — MONITORING WELL INSTALLED BY GZA IN 2014
- GZA–206 — MONITORING WELL INSTALLED BY GZA IN 2005
- VHB-7 — MONITORING WELL INSTALLED BY VHB IN 2002 AND 2003
- F47 — TEMPORARY WELL POINT INSTALLED BY ESS IN 1999 AND 2000
- 1 — TEMPORARY WELL POINT INSTALLED BY ESS IN 1999
- RCA-40 — MONITORING WELL INSTALLED BY RCA IN 1996
- CHES-RW-A — RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2017
- RW-1 — RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2014
- CHES-RW-1 — RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
- ESS-RW-1 — RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000

MONITORING WELL LEGEND CONTINUED:

- ACTIVE MONITORING WELLS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS (PRE-2016)
- 2016 DECOMMISSIONED MONITORING WELLS
- TEMPORARY MONITORING WELL-ASSUMED DESTROYED
- RECOVERY WELLS
- DETECTED LNAPL THICKNESS (≥0.01 FEET)
- DETECTED DNAPL THICKNESS (≥0.01 FEET)

NOTES:

THIS SHEET IS SUBJECT TO SHEET N1 GENERAL NOTES.

NATIONAL GRID
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HISTORICAL NAPL THICKNESS (≥0.01 FEET) (2001-2017)

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PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING 6
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 8 OF 12

FINAL
ISSUED FOR PERMITTING

0 40 80 160 240
SCALE IN FEET 1" = 80'

LEGEND:

PROPERTY LINE	
SITE AREA BOUNDARY	
INTERIOR PROPERTY LINE	
EXISTING BUILDING	
UTILITY POLE	STEEL POST
LIGHT POLE	PILING
EDGE OF WATER	
FENCE	
RAILROAD TRACKS	
EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)	
EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)	
PAVEMENT	
CONCRETE	

MONITORING WELL LEGEND:

GZ-401	MONITORING WELL INSTALLED BY GZA IN 2015
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CHES-RW-1	RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
ESS-RW-1	RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000

MONITORING WELL LEGEND CONTINUED:

- ACTIVE MONITORING WELLS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS
- TEMPORARY MONITORING WELL-ASSUMED DESTROYED
- RECOVERY WELLS
- MONITORING WELL SAMPLED IN 2014

NOTES:

THIS SHEET IS SUBJECT TO SHEET N1 GENERAL NOTES.

EXCEEDANCES OF THE RIDEM
METHOD 1 AND 2 GB GROUNDWATER OBJECTIVES:

AGGREGATE VOC CONCENTRATION [PPM]
0.008 S — INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP

VINYL CHLORIDE [GB= 0.002 PPM]
NAPHTHALENE [GB= 2.67 PPM]
BENZENE [GB= 0.14 PPM]
ETHYLBENZENE [GB= 1.6 PPM]

PRESENCE OF MEASURABLE NAPL (≥0.01 FT) FOR 2014
[S/D] INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP
ND NOT DETECTED

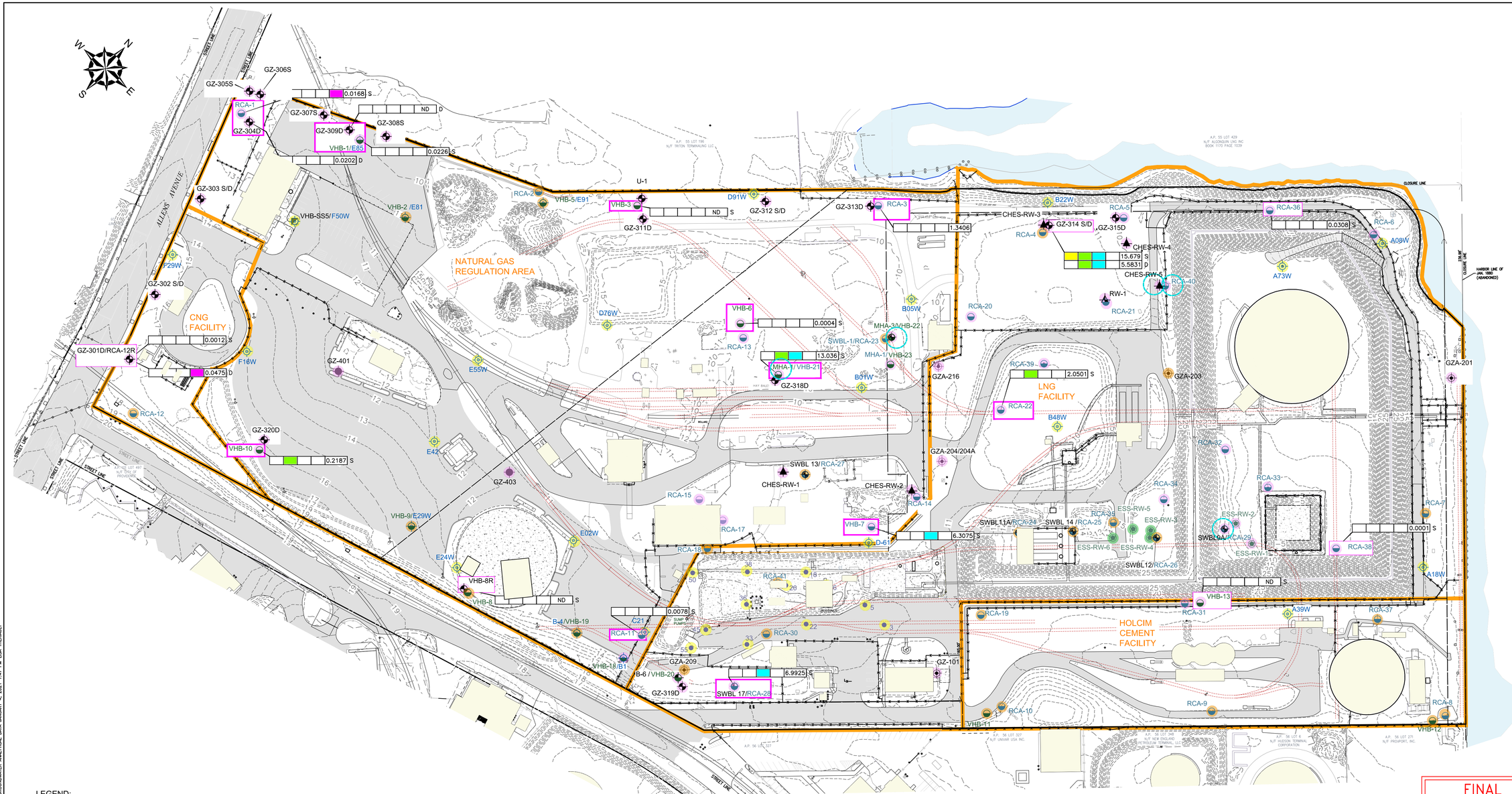
NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

2014 NAPL AND GROUNDWATER ANALYTICAL DATA

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com
PREPARED FOR: nationalgrid

PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	7A
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 9 OF 12

2021– GZA GeoEnvironmental, Inc. GZA-J:\ENV\33554.01.SN\FIGURES\CAD\DWGS\33554.01_EXP.DWG 2014 NAPL AND GROUNDWATER ANALYTICAL DATA JANUARY 4, 2021 1:45 PM LISA THERIAULT



LEGEND:

- PROPERTY LINE
- CURRENT OPERATIONS/SITE AREA BOUNDARY
- INTERIOR PROPERTY LINE
- EXISTING BUILDING
- UTILITY POLE / STEEL POST
- LIGHT POLE / PILING
- EDGE OF WATER
- FENCE
- RAILROAD TRACKS
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- PAVEMENT
- CONCRETE

MONITORING WELL LEGEND:

- GZ-401 — MONITORING WELL INSTALLED BY GZA IN 2015
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- ESS-RW-1 — RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000

MONITORING WELL LEGEND CONTINUED:

- ACTIVE MONITORING WELLS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS
- TEMPORARY MONITORING WELL-ASSUMED DESTROYED
- RECOVERY WELLS
- MONITORING WELL SAMPLED IN 2015

NOTES:

THIS SHEET IS SUBJECT TO SHEET N1 GENERAL NOTES.

EXCEEDANCES OF THE RIDEM METHOD 1 AND 2 GB GROUNDWATER OBJECTIVES:

- 0.008 S — AGGREGATE VOC CONCENTRATION [PPM]; INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP
- VINYL CHLORIDE [GB= 0.002 PPM]
- NAPHTHALENE [GB= 2.67 PPM]
- BENZENE [GB= 0.14 PPM]
- ETHYLBENZENE [GB= 1.6 PPM]
- PRESENCE OF MEASURABLE NAPL (≥0.01 FT) FOR 2015
- [S/D] — INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP
- ND — NOT DETECTED

FINAL
ISSUED FOR PERMITTING

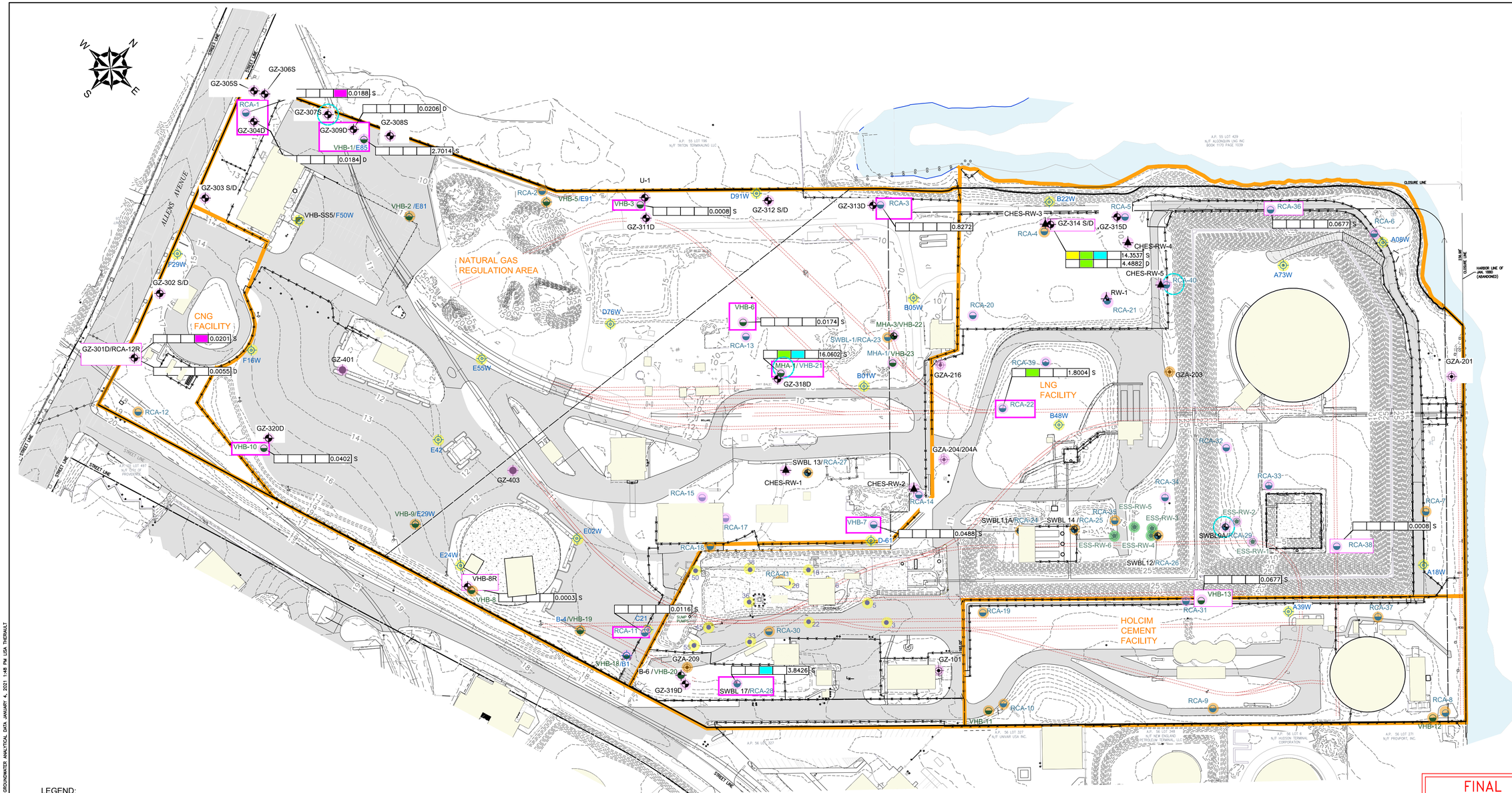
0 40 80 160 240
SCALE IN FEET 1" = 80'

NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

2015 NAPL AND GROUNDWATER ANALYTICAL DATA

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com
PREPARED FOR: nationalgrid

PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING 7B
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 10 OF 12



LEGEND:

- PROPERTY LINE
- SITE AREA BOUNDARY
- INTERIOR PROPERTY LINE
- EXISTING BUILDING
- UTILITY POLE
- STEEL POST
- LIGHT POLE
- PILING
- EDGE OF WATER
- FENCE
- RAILROAD TRACKS
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- PAVEMENT
- CONCRETE

MONITORING WELL LEGEND:

GZ-401	MONITORING WELL INSTALLED BY GZA IN 2015
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RW-1	RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2014
CHES-RW-1	RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
ESS-RW-1	RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000

MONITORING WELL LEGEND CONTINUED:

- ACTIVE MONITORING WELLS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS
- TEMPORARY MONITORING WELL-ASSUMED DESTROYED
- RECOVERY WELLS
- MONITORING WELL SAMPLED IN 2016

NOTES:

THIS SHEET IS SUBJECT TO SHEET N1 GENERAL NOTES.

EXCEEDANCES OF THE RIDEM
METHOD 1 AND 2 GB GROUNDWATER OBJECTIVES:

0.008 S — AGGREGATE VOC CONCENTRATION [PPM]; INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP

- VINYL CHLORIDE [GB= 0.002 PPM]
- NAPHTHALENE [GB= 2.67 PPM]
- BENZENE [GB= 0.14 PPM]
- ETHYLBENZENE [GB= 1.6 PPM]

PRESENCE OF MEASURABLE NAPL (≥0.01 FT) FOR 2016

[S/D] INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP

ND NOT DETECTED

FINAL
ISSUED FOR PERMITTING

0 40 80 160 240
SCALE IN FEET 1" = 80'

NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

2016 NAPL AND GROUNDWATER ANALYTICAL DATA

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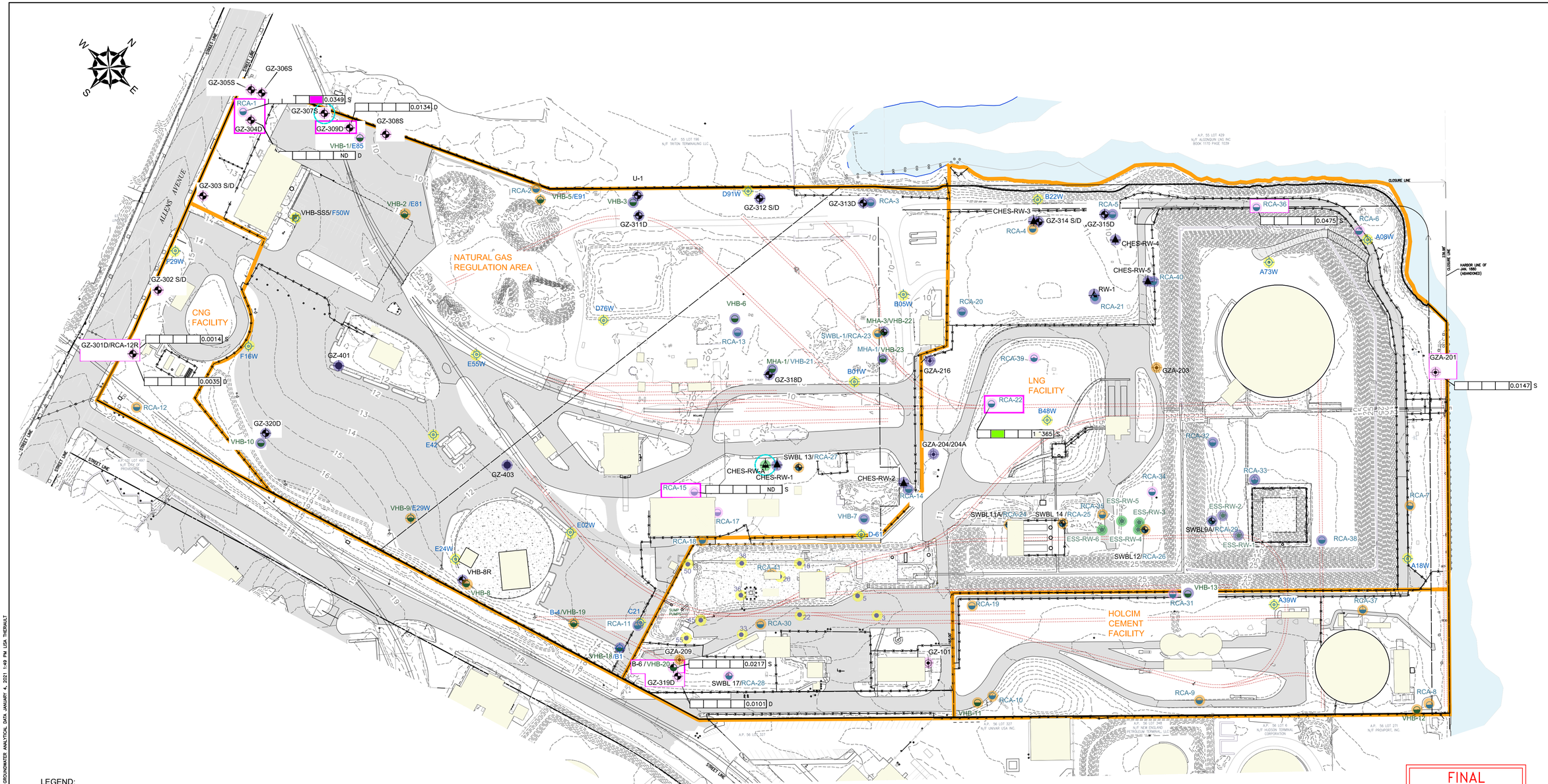
PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING 7C
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 11 OF 12



LEGEND:

- PROPERTY LINE
- SITE AREA BOUNDARY
- INTERIOR PROPERTY LINE
- EXISTING BUILDING
- UTILITY POLE
- STEEL POST
- LIGHT POLE
- PILING
- EDGE OF WATER
- FENCE
- RAILROAD TRACKS
- EXISTING CONTOUR (MAJOR 5 FOOT INTERVAL)
- EXISTING CONTOUR (MINOR 1 FOOT INTERVAL)
- PAVEMENT
- CONCRETE

MONITORING WELL LEGEND:

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- GZ-314 S/D — MONITORING WELL INSTALLED BY GZA IN 2014
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- CHES-RW-1 — RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002
- ESS-RW-1 — RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000

MONITORING WELL LEGEND CONTINUED:

- ACTIVE MONITORING WELLS
- DECOMMISSIONED OR DESTROYED MONITORING WELLS
- 2016 DECOMMISSIONED MONITORING WELLS
- TEMPORARY MONITORING WELL-ASSUMED DESTROYED
- RECOVERY WELLS
- MONITORING WELL SAMPLED IN 2017

NOTES:

THIS SHEET IS SUBJECT TO SHEET N1 GENERAL NOTES.

EXCEEDANCES OF THE RIDEM METHOD 1 AND 2 GB GROUNDWATER OBJECTIVES:

0.008 S — INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP

AGGREGATE VOC CONCENTRATION [PPM]

- VINYL CHLORIDE [GB= 0.002 PPM]
- NAPHTHALENE [GB= 2.67 PPM]
- BENZENE [GB= 0.14 PPM]
- ETHYLBENZENE [GB= 1.6 PPM]

PRESENCE OF MEASURABLE NAPL (≥0.01 FT) FOR 2017

[S/D] — INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP

ND — NOT DETECTED

FINAL
ISSUED FOR PERMITTING

0 40 80 160 240
SCALE IN FEET 1" = 80'

NATIONAL GRID
MONITORING REPORT - 2014 THROUGH 2017
642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

2017 NAPL AND GROUNDWATER ANALYTICAL DATA

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com			PREPARED FOR: nationalgrid
PROJ MGR: SDN	REVIEWED BY: MSK	CHECKED BY: JJC	DRAWING 7D
DESIGNED BY: SH	DRAWN BY: LDT	SCALE: AS NOTED	
DATE: JANUARY, 2021	PROJECT NO. 33554.01	REVISION NO. 0	SHEET NO. 12 OF 12

APPENDIX A

LIMITATIONS

GEOHYDROLOGICAL LIMITATIONS

1. This *Groundwater Monitoring Report* has been prepared on behalf of and for the exclusive use of The Narragansett Electric Company d/b/a National Grid, solely for use in documenting the conditions observed at the property located at 642 Allens Avenue in Providence, Rhode Island ("Site"). This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without the prior written consent of GZA or National Grid.

2. GZA's work was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and GZA observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the study. No other warranty, express or implied is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during the performance of our Site investigations.

3. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based upon services performed and observations made by GZA.

4. In the event that National Grid or others authorized to use this report obtain information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

5. The conclusions and recommendations contained in this report are based in part upon the data obtained from environmental samples obtained from relatively widely spread subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the boring logs.

7. In the event this work included the collection of water level data, these readings have been made in the test pits, borings and/or observation wells at times and under conditions stated on the exploration logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

8. The conclusions contained in this report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by GZA and the conclusions and recommendations presented herein modified accordingly.

APPENDIX B

SITE INVESTIGATION BACKGROUND

The following summary was prepared to provide a summary of the regulatory history of the Site and a summary of more recent Site investigation activities that have been conducted at the Site in 2014, 2016 and 2017.

Regulatory History

RIDEM issued a Letter of Responsibility (LOR) on February 13th, 1998 to Providence Gas Company (PGC) based on results presented in the February 1995 *Summary Report – Phase 1A Field Investigations* prepared by RCA on behalf of the PGC and the *June 1996 Summary Report – Phase 1B Field Investigations* prepared by RCA on behalf of the PGC. The Site was listed as State Site #98-004 (RIDEM File No. SR-28-1152) following the issuance of the LOR.

Previous Site Investigations

Previous investigations have been performed at the Site by various firms dating back to 1994. These Site investigations have been documented in reports submitted to RIDEM. Investigations included extensive drilling, test pitting, soil sampling and groundwater sampling. The following reports were prepared to present results of Site investigation activities:

- July 1994 *Site Characterization Report* prepared by Resource Controls Associates, Inc. (RCA) on behalf of the PGC;
- February 1995 *Summary Report – Phase 1A Field Investigations* prepared by RCA on behalf of the PGC;
- June 1996 *Summary Report – Phase 1B Field Investigations* prepared by RCA on behalf of the PGC;
- December 1998 *RAWP* prepared by ESS prepared on behalf of the PGC;
- October 1999 *Subsurface Investigation and Proposed Remediation Algonquin Generator Construction Area* prepared by Environmental Science Services, Inc. (ESS) on behalf of the PGC;
- April 2003 *Site Investigation Report* (*SIR)* prepared by Vanasse Hangen Brustlin, Inc. (VHB) on behalf of the New England Gas Company (NEGC); and
- January 2009 *Oxide Box Waste Summary Memo* prepared by VHB on behalf of National Grid.

For further information related to previous Site investigations, please refer to the reports previously referenced.

GZA conducted supplemental site investigation activities at the Site in 2014. A summary of these activities is presented below. These activities will be documented in an addendum to the SIR. This SIR Addendum is expected to be submitted to RIDEM during 2021.

Remedial Actions

Remedial activities were proposed by PGC and presented in a report entitled *Remedial Action Work Plan (RAWP), Providence Gas Company, Providence, RI,* which was revised and amended multiple times, with the final version dated December 4, 1998. The *RAWP* was the result of investigation work conducted by RCA and others prior to 1996. The *RAWP* concentrated on the remediation of former MGP structures and soil source areas that were discovered during the pre-1996 investigations and concentrated most efforts to the Liquefied Natural Gas (LNG) portion of the Site. As further detailed in the 1998 *RAWP*, the remedial efforts generally consisted of the following:

- Established Remedial Objectives for surface and subsurface soils at the Site. Surface soil remedial objectives were generally consistent with soils meeting the RIDEM Industrial / Commercial Direct Exposure Criteria (I/C-DEC).

- Dewatering of specific subsurface MGP structures prior to removal of contents with water processing through an on-Site waste water treatment system.

- Excavation and blending of subsurface MGP structure contents and impacted Site soil for off-Site co-burning at a coal fired utility boiler.

- Installation of the containment boom in the cove area at the Site.

- Backfilling of subsurface structures and excavated areas with fill or construction debris meeting the established Remedial Objectives obtained from either off-Site or on-Site sources.

- Removal of light non-aqueous phase liquid (LNAPL) from the groundwater surface encountered during excavation, with transfer of the LNAPL to the on-Site waste water treatment system.

- Removal of underground product piping encountered during excavation activities.

RIDEM approved the December 4, 1998 *RAWP* on June 1, 1999 with a *Temporary Remedial Action Permit (TRAP)*. The *TRAP* noted that RIDEM did not feel Site investigation activities were complete but that the planned limited remedial action was acceptable.

VHB modified the *RAWP* on behalf of the New England Gas Company (NEGC) in November 2001 (known herein as the *MRAWP*) to reflect additional proposed remedial work:

- Additional source removal was proposed from Former MGP structures. The *MRAWP* proposed to remove this source material, dispose of them off-property and backfill the areas with suitable fill meeting the approved Remedial Objectives.

- Additional soil and LNAPL removal that was suspected to be associated with MGP wastes was proposed. The *MRAWP* proposed to remove these soils, dispose them off-property and backfill the areas with suitable fill.

- An active seep area was detected proximate to the Providence Harbor in the tidal inlet that bounds the property to the north. The *MRAWP* proposed to mitigate the seep by removing active gas piping and then removing MGP-impacted materials, piping and MGP remnants structures from the shoreline. The *MRAWP* noted that after those mitigate efforts were complete, the appropriateness of installing a flow retarding structures, such as a slurry wall was planned to be evaluated and possibly installed before closing the excavated areas.

RIDEM approved the November 2001 *MRAWP* on April 17, 2002 with a *TRAP*. A RIDEM order in the *TRAP* indicated that portions of the Site that were not included in the LNG facility were not adequately characterized and therefore RIDEM required the submittal of a *SIR* incorporating the remainder of the Site within 90 days of completing the *MRAWP* activities. As noted above, a *SIR* for the Site was submitted to RIDEM in April 2003.

Soil Management Plan

A Soil Management Plan (*SMP*) was established for the Site and submitted to RIDEM on September 12, 2012. The *SMP* was prepared to establish procedures that will be followed should construction or utility maintenance activities at the Property require the need to manage soils excavated from the subsurface. The *SMP* established procedures for soil screening/disposal requirements, soil stockpile management and erosion controls, odor controls, dust controls, capping requirements, decontamination protocols equipment leaving the Site, requirements for import of soils, basic dewatering guidelines and management of non-soils (such as asphalt or concrete).

The *SMP* is similar to what would be recorded with an Environmental Land Use Restriction (ELUR) and has been utilized at the Site for numerous small facility projects (such as fence post installation, geotechnical investigation work, utility emergency work, smaller facility projects under previously installed engineered caps, and other critical utility infrastructure work). No additional sampling or environmental Site investigation work has been conducted under the *SMP*. Each project was restored with an engineered cap.

Although the *SMP* does not include any formal requirements for documentation, National Grid is preparing summary reports which will document all activities performed at the Site under the 2012 *SMP* between 2012 and 2017. Going forward, all activities conducted under the *SMP* will be documented on annual basis with reports submitted to RIDEM.

Recent Site Investigation Activities

Supplemental site investigation activities were performed by GZA in 2014. The purpose of these supplemental site investigation activities was to collect additional subsurface information to address identified data gaps and to support the development of an applicable and appropriate remedial strategy for the Site. A *SIR Addendum* is planned to be submitted in 2021 which will include more details about the site investigation activities conducted and the proposed remedial strategy for the Site.

The 2014 field program involved the completion of thirty (30) soil borings, with twenty-three (23) of the borings completed as groundwater monitoring wells to evaluate groundwater quality and the presence of NAPL. This investigation program also included the performance of one (1) test pit and the installation of a recovery well. Additionally, and as described below, forty-four (44) monitoring wells were decommissioned in 2016. Exploration locations are shown on **Figure 3A** (*Exploration Location Plan – CNG Facility and Natural Gas Regulation Facility*) and **Figure 3B** (*Exploration Location Plan – LNG Facility and Holcim Cement Facility)*. The following sections were prepared to provide a brief overview of the supplemental site investigation activities conducted, with specific focus on the groundwater investigation activities.

2014 Supplemental Site Investigation Activities

GZA observed the installation of thirty (30) soil test borings by Geologic Earth Exploration, Inc. of Norfolk, Massachusetts. The majority of the soil borings were advanced using cased (wash and drive) drilling techniques. In addition, each of the borings were initially advanced using vacuum excavation to depths of approximately 6 feet below ground surface (bgs) or the water table for utility clearance purposes. Four (4) borings were advanced using vacuum excavation only (GZ-321S to GZ-324S). All soil borings extended to 30 to 36 feet bgs, with the exception of certain shallow (*i.e.* GZ-316D, GZ-317D, and GZ-321S to GZ-324S). Refusal was encountered at depths of 6.5 feet bgs and 5.5 feet bgs, respectively, at borings GZ-316D and GZ-317D. GZ-321S to GZ-324S were completed to collect additional subsurface soil samples only. The deep multi-level

borings (identified with a "D" suffix to the boring identification number) extended to at least 10 feet into "clean soils"[1]. The shallow multi-level borings were identified with an "S" suffix to the boring identification number. Soil samples were obtained continuously during the advancement of the borings at approximately 2-foot intervals with a 2-inch split-spoon sampler and a 140-pound hammer.

Groundwater monitoring wells were installed in twenty-three (23) of the thirty (30) borings as described below. A GZA field engineer was present during all exploration activities to coordinate and document subsurface conditions, classify soils, prepare boring logs, field-screen soil samples and collect/prepare samples for laboratory testing. Twenty-three (23) new monitoring wells were installed to further investigate data gaps and further evaluate groundwater quality and the nature and extent of NAPL at the Site. The shallow and deep wells were constructed of 2-inch Schedule 40 PVC in accordance with the standards specified in Appendix 1 of the RIDEM Groundwater Quality Regulations. Ten (10) of the wells consisted of shallow wells with screens set to span the natural water table encountered during drilling (typically within the fill unit). The remaining thirteen (13) wells consisted of deep wells extended into "clean soils", equipped with a 10-foot screen section set near the bottom of the boring at least 30 feet bgs. For both the deep and shallow wells, a sand filter pack was installed in the annular space around the well screen and extended approximately 1 foot above the well screen. The well screen lengths of the water table wells varied from approximately 10 to 15 feet. An approximate 1-foot (minimum) bentonite seal was placed above the filter pack. The remaining borehole above the bentonite was backfilled with clean native drill cuttings (when encountered) or clean filter sand. No impacted soil was used as backfill to construct the monitoring wells. A concrete surficial seal with an approximate 3-foot long, steel protective casing or a protective roadbox was installed to protect the wells. No glue or cement was used in the construction of any of the wells. Please refer to the boring logs attached for a description of subsurface conditions and monitoring well construction details.

Upon completion of the monitoring well installations, the wells were allowed to stabilize over a minimum 1-week period prior to well development. Well development activities were completed between June 13th and 16th, 2014. The newly installed wells and all available pre-existing wells that were sampled during the June 2014 sampling round were developed to remove sediment build-up. This process was performed by surging a bailer repeatedly the length of the well screen followed by the removal of at least ten (10) standing water column volumes or the removal of water added during drilling. Groundwater was removed via a combination of bailing and pumping techniques. During development, GZA monitored the turbidity of the extracted water to evaluate the effectiveness of the development activities. Well development continued until the water quality was reasonably non-turbid or until the minimum purge volume was achieved. The attached *Summary Table of Well Development Results (2014)* presents a summary of well development activities completed.

On June 17, 2014, GZA observed the performance of a test pit (TP-301) by Clean Harbors Environmental Services, Inc. (CHES) with the objective of further characterizing the extent of LNAPL at monitoring well RCA-21 (shown on **Figure 3B** *(Exploration Location Plan – LNG Facility and Holcim Cement Facility)*). The test pit was performed with a track-mounted excavator and extended to a depth of approximately 13 feet bgs, covering an approximate area of 50 square feet (SF). The excavated soil was temporarily staged adjacent to the excavation on two layers of poly sheeting for subsequent re-use as backfill. A recovery well was installed in TP-301. The recovery well consisted of 12-inch diameter high density polyethylene (HDPE) pipe set at approximately 13 feet bgs, with a 5-foot perforated screen section set between 8 and 13 feet bgs and non-perforated HDPE pipe set from 8 feet bgs to 2 feet above ground surface. The recovery well was backfilled around the perforated screen section with ¾-inch crushed stone and the excavated soil was subsequently used to backfill the test pit in approximately the same sequence as removed; that is, the last material removed was the first material replaced.

The backfill was compacted with the bucket of the excavator in successive lifts. The test pit log associated with TP-301 (including a description of the recovery well installation) is attached.

2016 Monitoring Well Decommissioning

As presented in the May 26, 2016 *Proposed Upcoming Groundwater Monitoring Activities Letter* prepared by GZA on behalf of National Grid which was submitted to RIDEM, several large facility projects have been conducted or are proposed at the Site over the next few years which require the closure of certain monitoring wells at the Site. Monitoring well closure activities were conducted at the Site between June 27, 2016 and July 9, 2016. National Grid decommissioned forty-two (42) of the seventy-five (75) available monitoring wells located at the Site: RCA-3, RCA-5, RCA-11, RCA-14, RCA-20, RCA-29, RCA-32, RCA-33, RCA-38, RCA-40, VHB-3, VHB-6, VHB-7, VHB-8R, VHB-10, VHB-13, VHB-18, VHB-21, VHB-22, VHB-23, CHES RW-1, CHES RW-2, CHES RW-3, CHES RW-4, CHES RW-5, RW-1, ESS RW-1, ESS RW-2, U-1, GZ-204, GZ-216, GZ-311D, GZ-312D, GZ-312S, GZ-313D, GZ-314D, GZ-314S, GZ-315D, GZ-318D, GZ-320D, GZ-401, and GZ-403. Two (2) inactive monitoring wells (RCA-7 and RCA-13) were also decommissioned during this effort. Locations of the monitoring wells that were decommissioned are depicted on **Figure 4** (*Groundwater Monitoring Wells)*. The wells were abandoned by Geologic Earth Exploration, Inc. of Norfolk, Massachusetts. Consistent with Appendix 1 of the Rhode Island Water Quality Rules (http://www.dem.ri.gov/pubs/regs/regs/water/gwqual10.pdf), the monitoring wells were abandoned via splitting or removing the PVC well casing and then filling the remaining borehole with grout. Logs documenting the well abandonment activities are attached. Several of the monitoring wells are planned to be replaced after the facility projects are complete.

2017 Recovery Well Installation

On September 15, 2017, GZA observed the installation of a recovery well (CHES RW-A) by CHES (shown on **Figure 3B** *(Exploration Location Plan – LNG Facility and Holcim Cement Facility)*). This recovery well was installed into an open excavation after NAPL was observed leaching into it during routine maintenance work. The recovery well consists of screened 12-inch diameter HDPE pipe set at approximately 10 feet bgs. The recovery well was backfilled to 2 feet above the groundwater level with ¾-inch crushed stone. The excavation was then capped with an engineered cap consisting of at least 24-inches of imported clean ¾-inch dense graded gravel underlain with Site soils.

Recent Short Term Response Action Activities

Several facility projects have been initiated / completed under Short Term Response Action Plans (*STRAPs)* approved by RIDEM. The table below provides a summary of these projects.

Project	Figure Ref.	Summary of Project	Regulatory Submittals to RIDEM OWM	RIDEM OWM Approval Date	Date Work Completed	STRA Completion Report submitted to RIDEM OWM
Holder 18/21 Capping Project	4A / 7	Capping of 4.63 acres in the Natural Gas Regulating Facility	*STRAP* – April 27, 2016 *STRAP Addendum* – May 10, 2016	May 18, 2016	August 8, 2016 – March 31, 2017	April 27, 2017

Project	Figure Ref.	Summary of Project	Regulatory Submittals to RIDEM OWM	RIDEM OWM Approval Date	Date Work Completed	STRA Completion Report submitted to RIDEM OWM
Dike Access Road Project	4B / 7	Capping of approximately 39,000 square feet (SF) (0.90 acres) of the Site for a new facility access road for the LNG Facility.	*STRAP* – June 29, 2016 *STRAP Addendum* – August 22, 2016	August 25, 2016	August 31, 2016 – January 9, 2020	February 8, 2020
	4B	Capping of approximately 12,000 SF (0.28 acres) of the Site for a new facility access road for the Holcim Cement Facility.	*STRAP Addendum* – May 30, 2017	Rescinded		
Proposed Liquefaction Project	4B	Capping of approximately 3.45 acres of the Site for a proposed liquefaction facility at the LNG Facility.	*STRAP* – May 12, 2017 and *STRAP Addendum* – October 11, 2017	October 27, 2017	January 2, 2019 – Pending	Pending

Existing Engineered Controls

Approximately 58% (23.61 acres of a total 41 acres) of the Site has been remediated via a combination of impacted soil removal and installation of RIDEM approved engineered caps, effective engineered caps or alternative barriers.

Engineered caps that have been installed at the Site consist of the following:

- At least 24-inches (2 feet) of clean soil or stone material (7.42 acres);
- At least 12-inches (1 foot) of clean soil or stone material underlain with a non-woven geotextile barrier (1.9 acres);
- Building footprint (1.94 acres);
- Concrete surface (1.85 acres);
- Asphalt surface (9.85 acres); and
- LLDPE liner system overlain with clean fill or asphalt (0.65 acres).

Additionally, while there are portions of the existing LNG facility that are not currently capped with a RIDEM-approved engineered cap, the entirety of the LNG facility (16.36 acres) is surrounded by a double layer of chain link fencing with razor wire which is inspected on a daily basis. Access to this portion of the Site is limited to trained, on-Site personnel. Ground cover within this portion of the LNG facility consists of a layer of crushed stone; no surface soils are exposed. The combined security fencing and crushed stone associated with the LNG facility are considered to constitute an effective alternative engineered control.

Public Involvement Plan

On September 6, 2016, RIDEM informed National Grid that RIDEM Office of Waste Management (OWM) received a formal request for development of a Public Involvement Plan (*PIP*) with a *PIP Process Initiation Letter*.

GZA, on behalf of National Grid, submitted the *PIP* to RIDEM OWM on October 28, 2016. A *revised PIP* was submitted to RIDEM on May 4, 2017. After responding to comments issued by RIDEM on June 2, 2017, the *PIP* was finalized on June 9, 2017. RIDEM issued a *Public Involvement Plan Approval Letter* on June 28, 2017.

Consistent with the Remediation Regulations, and specifically Rule 7.07E, the *PIP* was prepared to address relevant and applicable requirements of Rules 7.07 A, B, C and D of the Remediation Regulations. Per Rule 7.07 (Public Involvement), the PIP addresses the following primary elements: 1) Public Notice, 2) Fact Sheets and Enhanced Communication, 3) Community Meetings, and 4) Information Repositories.

The *PIP* is not intended to apply to projects involving limited subsurface disturbance associated with construction activities or those located in areas previously capped consistent with RIDEM requirements. In addition, this plan does not apply to work necessary to maintain day-to-day operations at existing facilities or facility emergencies, including repairs and maintenance of the natural gas regulating facility, compressed natural gas fueling station, liquefied natural gas facility, and cement distribution facility. This plan also does not apply to projects involving minor soil disturbances only (e.g. utility work, installation of fence posts, etc.). For these activities, National Grid will follow the soil and groundwater management procedures for the Site set forth in the September 2012 *SMP*.

Attachments:

- Boring Logs
- Test Pit Log
- Summary Table of Well Development Results (2014)
- Well Abandonment Logs

BORING LOGS

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-301D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 17.87
Final Boring Depth (ft.): 30
Date Start - Finish: 5/22/2014 - 5/30/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/3/14	N.A	10.01	3 Days
6/11/14	11:55	9.99	11 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Top 12": Dark brown (10YR, 3/3) fine SAND, some Silt, trace Gravel, trace Roots, Dry Bottom 12": Brown (10YR, 5/3) fine SAND, some Silt, Dry	1 2	ND ND						Road Box
2	S-2	2-4	N/A	N/A		S-2 : Red-brown (5YR, 4/4) SLAG, some fine to coarse Sand, little Ash, Dry		ND						
3														
4	S-3	4-6	N/A	N/A		S-3 : Red-brown (5YR, 4/4) SLAG, some fine to coarse Sand, little Ash, Dry		ND						
5														
6	S-4	6-8	24	0	3 1 1 1	S-4 : Very loose, no recovery		NM						
7												FILL		
8	S-5	8-10	24	6	1 1 2 2	S-5 : Very loose, dark brown (10YR, 3/2) SLAG, some fine to coarse SAND, trace (+) Gravel, trace (+) Silt, trace (+) Brick, trace (+) Coal, trace Ash, Wet	3	ND						PVC Riser
9														
10	S-6	10-12	24	6	3 1 2 9	S-6 : Very loose, dark brown (10YR, 3/2) SLAG, some fine to coarse SAND, trace (+) Gravel, trace (+) Silt, trace (+) Brick, trace (+) Coal, trace Ash, Wet		ND						
11														
12	S-7	12-14	24	12	8 1 1 6	S-7 : Top 4": Dark brown (10YR, 3/2) SLAG, some fine to coarse SAND, trace (+) Gravel, trace (+) Silt, trace (+) Brick, trace (+) Coal, trace Ash, Wet Bottom 8" Very loose, gray brown (10YR, 4/2) fine to coarse SAND, little Silt, trace (+) Gravel, Wet		ND ND						
13														
14	S-8	14-16	24	4	17 11 8 2	S-8 : Medium dense, gray brown (10YR, 4/2) GRAVEL, little fine to coarse Sand, little Silt, Wet		ND			14	POSSIBLE FILL/SANDS AND SILT	3.9	
15														

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 8 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-301D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-301D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	8	3 2 5 4	S-9 : Loose, gray brown (10YR, 4/2) fine to coarse SAND, little Gravel, little Silt, Wet		ND						
17												POSSIBLE FILL/SANDS AND SILT		Bentonite Seal
18	S-10	18-20	24	4	3 4 4 4	S-10 : Loose, gray brown (10YR, 4/2) fine to coarse SAND, little Gravel, little Silt, Wet		ND						
19							4							Filter Sand
20	S-11	20-22	24	12	25 8 1 2	S-11 : Loose, dark gray (10YR, 4/1) Organic SILT and SAND, little Wood, little Roots, trace Gravel, Wet		ND			20		-2.1	
21														
22	S-12	22-24	24	16	4 3 4 4	S-12 : Top 6": Dark gray (10YR, 4/1) Organic SILT and SAND, little Wood, little Roots, trace Gravel, Wet Bottom 10": Dark gray (10YR, 4/1) Organic SILT, trace Wood, trace Roots, Wet		ND ND						
23														
24	S-13	24-26	24	20	4 3 1 2	S-13 : Top 6": Dark gray (10YR, 4/1) Organic SILT, trace Wood, trace Roots, Wet Bottom 14" red brown (5YR, 5/4) PEAT, some Roots, some Wood, trace Gravel, Wet		ND ND				PEAT Organic SILT		
25														Well Screen
26	S-14	26-28	24	24	13 10 14 13	S-14 : Top 8": Red brown (5YR, 5/4) PEAT, some Roots, some Wood, trace Gravel, Wet 8"-16": Red brown (5YR, 5/4) fine to coarse SAND and SILT, trace Gravel, trace Roots, trace wood, trace Organics, Wet Bottom 8": Gray (10YR, 4/1) fine SAND, trace Silt, trace Gravel, Wet		ND ND						
27											27		-9.1	
28	S-15	28-30	24	14	5 4 4 3	S-15 : Loose, gray (10YR, 4/1) fine SAND and SILT, trace (+) Gravel, Wet		ND						
29												SAND AND SILT		
30						End of exploration at 30 feet.					30		-12.1	
31														
32														
33														

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 30 feet bgs, 2" Diameter, Schedule 40, flush joint, PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 19-30 feet bgs; Bentonite Seals installed from 16-19 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-301D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-302D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/WF
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 16.97
Final Boring Depth (ft.): 30
Date Start - Finish: 5/22/2014 - 5/30/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/11/14	10:45	9.47	13 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Top 12" Dark brown (10YR, 3/3) fine SAND, some Silt, trace Gravel, trace Roots, dry Bottom 12" Yellow brown (10YR, 5/6) fine SAND, little Silt, dry	1 2	ND ND						Road Box
2	S-2	2-4	N/A	N/A		S-2 : Yellow brown (10YR, 5/6) fine SAND, some Silt, moist		0.1				Possible Fill/SAND and SILT		
3														Bentonite Seal
4	S-3	4-6	N/A	N/A		S-3 : Brown (10YR, 4/3) fine to medium SAND, little Gravel, little Silt, moist		0.1						
5											5		12.0	
6	S-4	6-8	24	3	12 11 12 12	S-4 : Medium dense, tan/gray (10YR, 5/1) fine to coarse SAND, trace (+) Gravel, trace Silt, wet		ND						
7														
8	S-5	8-10	24	6	12 12 12 13	S-5 : Medium dense, tan/gray (10YR, 5/1) fine to coarse SAND, trace (+) Gravel, trace Silt, wet	3	ND						PVC Riser
9														
10	S-6	10-12	24	16	10 10 11 14	S-6 : Medium dense, tan/gray (10YR, 5/1) fine to coarse SAND, trace (+) Gravel, trace Silt, wet		ND				SAND		
11														
12	S-7	12-14	24	0	12 15 11 12	S-7 : Medium dense, no Recovery		NM						
13														
14	S-8	14-16	24	9	13 9 14 9	S-8 : Medium dense, tan/gray (10YR, 5/1) fine to coarse SAND, little Gravel, trace Silt, wet		ND						
15														

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 7 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-302D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-302D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.) / Description / Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	12	9 11 23 7	S-9 : Dense, gray (GLEY, 5/N) fine to coarse SAND, little (+) Gravel, trace (+) Silt, moderate oil-like odor, wet		154				
17										Mod		Filter Sand
18	S-10	18-20	24	14	23 12 23 15	S-10 : Dense, tan (10YR, 4/2) fine to coarse SAND, little Gravel, trace (-) Silt, moderate oil-like odor, oil-like blebs observed from 19.5-19.7 feet bgs, wet		281				
19							4			Mod		Bentonite Seal
20	S-11	20-22	24	7	14 13 18 14	S-11 : Dense, tan/gray (10YR, 4/3) fine to coarse SAND, little Gravel, trace (+) Silt, slight oil-like odor, wet		70				
21										Slgt		
22	S-12	22-24	24	12	10 8 8 7	S-12 : Medium dense, gray (GLEY, 4/10YR) fine to coarse SAND, little Gravel, trace (+) Silt, wet		ND				
23											SAND	
24	S-13	24-26	24	5	11 13 15 13	S-13 : Medium dense, gray (GLEY, 4/10Y) fine to coarse SAND, little Gravel, trace (+) Silt, wet		ND				
25												Well Screen
26	S-14	26-28	24	17	15 14 10 12	S-14 : Medium dense, gray (GLEY, 4/10Y) fine to coarse SAND, little Gravel, trace (+) Silt, wet		ND				
27												
28	S-15	28-30	24	9	16 16 38 17	S-15 : Dense, gray (GLEY, 4/10Y) fine to coarse SAND, little Gravel, trace (+) Silt, wet		ND				
29												
30						End of exploration at 30 feet.					30 -13.0	
31												
32												
33												

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 30 feet. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 19-30 feet bgs; Bentonite Seals installed from 2-4 and 18-19 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-302D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-302S
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 16.97
Final Boring Depth (ft.): 15
Date Start - Finish: 5/22/2014 - 6/3/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/11/14	13:00	9.57	8 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1		0-15				: None/Refer to GZ-302D	1							Road Box
2												Possible Fill/SAND and SILT		PVC Riser
3							2							
4														Bentonite Seal
5											5		12.0	Filter Sand
6														
7														
8														
9														
10												SAND		Well Screen
11														
12														
13														
14														
15						End of exploration at 15 feet.					15		2.0	

REMARKS

1 - No sampling completed at this location. See GZ-302D for sampling details. Stratum and impact descriptions inferred from GZ-302D.
2 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 15 feet. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-5 feet bgs; Filter Sand placed in annulus from 4-15 feet bgs; Bentonite Seals installed from 3-4 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-302S

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:09 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-303D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 13.78
Final Boring Depth (ft.): 30
Date Start - Finish: 5/22/2014 - 6/3/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/30/14	NM	6.41	1 Day
6/3/14	NM	6.38	5 days
6/12/14	13:30	6.39	14 days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)
0	S-1	0-2	N/A	N/A		S-1 : Dark brown (10YR, 3/3) fine SAND, some Silt, trace Gravel, trace Roots, dry	1 2	ND					
2	S-2	2-4	N/A	N/A		S-2 : Yellow brown (10YR, 5/6) fine SAND, little Silt, trace Gravel, dry		ND					
4	S-3	4-6	N/A	N/A		S-3 : Brown (7.5YR, 5/6) fine SAND, little Silt, trace Gravel, moist		ND					
6	S-4	6-8	24	16	8 8 6 6	S-4 : Medium dense, tan (10YR, 6/2) fine to coarse SAND, trace Gravel, trace Silt, wet		ND				FILL	
8	S-5	8-10	24	4	12 7 7 7	S-5 : Medium dense, gray (GLEY 1, 5/10Y) fine to coarse SAND, little Gravel, trace Silt, trace Brick, moderate oil-like odor, slight sheen, wet	3	66		Mod			
10	S-6	10-12	24	1	15 8 9 8	S-6 : Medium dense, gray (GLEY 1, 5/10Y) fine to coarse SAND, little Gravel, trace Silt, trace Brick, moderate oil-like odor, slight sheen, wet		51		Mod			
12	S-7	12-14	24	15	19 20 15 14	S-7 : Dense, gray (GLEY 1, 5/10YR) fine to coarse SAND, little (+) Gravel, trace (+) Silt, moderate oil-like odor, slight sheen, wet		341		Mod	12	SAND AND SILT	1.8
14	S-8	14-16	24	9	15 11 10 9	S-8 : Medium dense, gray (GLEY 1, 5/10YR) fine to coarse SAND, little (+) Gravel, trace (+) Silt, moderate oil-like odor, slight sheen, wet		604					

Equipment Installed: Road Box; Bentonite Seal; PVC Riser; Filter Sand

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 6.5 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-303D

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:10 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-303D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	14	6 4 4 8	S-9 : Loose, gray/tan (10YR, 5/1) fine SAND, trace (+) Silt, wet		ND		Mod		SAND AND SILT		
17														
18	S-10	18-20	24	18	3 5 4 3	S-10 : Loose, gray/tan (10YR, 5/1) fine (+) to medium SAND, trace (+) Silt, slight oil-like odor, wet		6			18		-4.2	Filter Sand
19							4			Slgt				Bentonite Seal
20	S-11	20-22	24	16	5 5 5 4	S-11 : Medium dense, gray (GLEY 1, 5/N) fine SAND, little (+) Silt, wet		ND						Filter Sand
21												SAND AND SILT/POSSIBLE ORGANIC SILT		
22	S-12	22-24	24	18	5 6 6 9	S-12 : Medium dense, gray (GLEY 1, 5/N) fine SAND, little (+) Silt, wet		ND						
23														
24	S-13	24-26	24	17	11 7 7 10	S-13 : Medium dense, gray (GLEY 1, 5/N) fine SAND, little (+) Silt, wet		ND						
25											25		-11.2	Well Screen
26	S-14	26-28	24	19	5 4 4 5	S-14 : 0-15" Gray (GLEY 1, 5/N) fine SAND, little (+) Silt, wet 15"-19" Tan/gray (10YR, 5/1) fine (+) to medium SAND, trace Silt, wet		ND						
27												SAND		
28	S-15	28-30	24	17	6 7 8 11	S-15 : Medium dense, tan/gray (10YR, 5/1) fine (+) to medium SAND, trace Silt, wet		ND						
29														
30						End of exploration at 30 feet.					30		-16.2	
31														
32														
33														

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 30 feet. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 19-30 feet bgs; Bentonite Seals installed from 2-3 and 18-19 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-303D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-303S
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/WF
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 13.78
Final Boring Depth (ft.): 15
Date Start - Finish: 5/22/2014 - 5/28/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/30/14	NM	6.65	2 Days
6/3/14	NM	6.63	6 Days
6/11/14	14:20	6.52	14 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.)	Stratum Description	Elev.(ft.)	Equipment Installed
		0-15				: None/Refer to GZ-303D								Road Box
1							1							
2							2							
3														PVC Riser
4														Bentonite Seal
5														Filter Sand
6												FILL		
7														
8														
9										Mod				
10														Well Screen
11										Mod				
12														
13										Mod	13		0.8	
14												SAND AND SILT		
15						End of exploration at 15 feet.				Mod	15		-1.2	

REMARKS

1 - No sampling completed at this location. See GZ-303D for sampling details. Stratum and impact descriptions inferred from GZ-303D.
2 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 15 feet. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-5 feet bgs; Filter Sand placed in annulus from 4-15 feet bgs; Bentonite Seals installed from 3-4 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-303S

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-304D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MB/SN/WF
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 13.78
Final Boring Depth (ft.): 30
Date Start - Finish: 5/21/2014 - 5/24/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/29/14	NM	6.66	5 Days
6/3/14	NM	6.50	10 Days
6/13/14	NM	6.44	20 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : 0-6" Dark brown (10YR, 3/3) fine SAND, some Silt, trace Gravel, dry 6"-24" Black (10YR, 2/1) fine SAND, little Ash, trace Silt, trace Gravel, trace Slag, dry	1 2	ND ND						Road Box
2														
3	S-2	2-4	N/A	N/A		S-2 : Black (10YR, 2/1) fine SAND, little Ash, trace Silt, trace Gravel, trace Slag, dry		0.7						Bentonite Seal
4														
5	S-3	4-6	N/A	N/A		S-3 : Black (10YR, 2/1) fine SAND, little Ash, trace (+) Slag, trace (+) Brick, trace Silt, trace Gravel, moist		1						
6														
7	S-4	6-8	24	8	1 2 3 1	S-4 : Very loose, gray (GLEY 1, 4N) fine to coarse SAND, little Silt, trace (+) Gravel, trace Brick, slight Coal tar-like odor, wet		13		Slgt		FILL		Filter Sand
8														
9	S-5	8-10	24	12	5 5 6 7	S-5 : Medium dense, tan (2.5YR, 4/2) fine to coarse SAND, little Gravel, trace Silt, trace Brick, strong Coal tar-like odor, wet	3 4	48		Strg				
10														
11	S-6	10-12	24	18	5 6 7 7	S-6 : Medium dense, gray (GLEY 1, 5/10YR) fine to coarse SAND, little (-) Gravel, trace Silt, slight Coal tar-like odor, wet		6		Slgt				
12														
13	S-7	12-14	24	5	8 5 7 8	S-7 : Medium dense, gray (GLEY 1, 4/N) fine to coarse SAND, little (-) Gravel, trace Silt, moderate oil-like and Coal tar-like odor, slight sheen, wet		66		Mod				
14														
15	S-8	14-16	24	1	7 4 2 2	S-8 : Loose, gray (GLEY 1, 4/N) fine to coarse SAND, strong Coal tar-like odor, Coal tar saturated, wet		14						

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 6.5 feet bgs.
4 - Coal tar saturated lense observed between 9 and 10 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-304D

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:12 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-304D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	12	3 3 3 3	S-9 : 0-6" Gray (GLEY 1, 5/10Y) fine to coarse SAND, little Silt, trace Silt, wet 6-12" Gray (GLEY 1, 5/10Y) fine SAND, little (+) Silt, wet		1.5		Strg				
17														PVC Riser
18												FILL		
19	S-10	18-20	24	0	4 2 1 1	S-10 : Very loose, no recovery	5	NM						Bentonite Seal
20	S-11	20-22	24	24	WOH	S-11 : Very loose, gray (GLEY 1, 5/N) fine SAND, little (+) Silt, trace Shell fragments, wet		0.5			20		-6.2	Filter Sand
21														
22	S-12	22-24	24	24	1 WOH 1 1	S-12 : Very loose, gray (GLEY 1, 5/N) fine SAND, little (+) Silt, trace Shell fragments, wet		0.7						
23														
24	S-13	24-26	24	22	1 1 1 1	S-13 : Very loose, gray (GLEY 1, 5/N) fine (+) to medium (-) SAND, little (+) Silt, trace (+) Gravel, trace Shell fragments, wet		ND						
25												SAND AND SILT/POSSIBLE ORGANIC SILT		Well Screen
26	S-14	26-28	24	18	WOH	S-14 : Very loose, gray (GLEY 1, 5/N) fine (+) to medium (-) SAND, little (+) Silt, trace (+) Gravel, trace Shell fragments, wet		ND						
27														
28	S-15	28-30	24	24	WOH	S-15 : Very loose, gray (GLEY 1, 5/N) fine (+) to medium (-) SAND, little (+) Silt, trace (+) Gravel, trace Shell fragments, wet		ND						
29														
30						End of exploration at 30 feet.					30		-16.2	
31														
32														
33														

REMARKS

5 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 30 feet. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 19-30 feet bgs; Bentonite Seals installed from 2-3 and 18-19 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-304D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-305S
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/WF
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 11.89
Final Boring Depth (ft.): 20
Date Start - Finish: 5/21/2014 - 5/22/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/29/14	NM	6.72	7 Days
6/3/14	NM	6.77	12 Days
6/13/14	NM	6.65	22 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)
0	S-1	0-2	N/A	N/A		S-1 : 0-6" Dark brown (10YR, 3/3) fine SAND and SILT, trace Gravel, trace Roots, dry	1	0.9					
1						6"-24" Black (10YR, 2/1) fine SAND, some Silt, some Ash, trace Gravel, dry	2	4.6					
2	S-2	2-4	N/A	N/A		S-2 : Black (10YR, 2/1) fine SAND, some Silt, some Ash, trace Gravel, dry		0.6					
3													
4	S-3	4-6	N/A	N/A		S-3 : Black (10YR, 2/1) fine SAND, some Silt, some Ash, little Brick, trace Gravel, moist		0.6					
5													
6	S-4	6-8	24	8	20 9 9 7	S-4 : Medium dense, gray (GLEY 1, 3/N) fine to coarse SAND, trace Gravel, trace (-) Silt, trace Brick, wet		4				FILL	
7													
8	S-5	8-10	24	8	9 11 12 9	S-5 : Medium dense, gray (GLEY 1, 3/N) fine to coarse (+) SAND, little Gravel, trace Silt, moderate oil-like odor, slight sheen, wet	3	186		Mod			
9													
10	S-6	10-12	24	8	13 12 4 4	S-6 : 0-4" Gray (GLEY 1, 3/N) fine to coarse (+) SAND, little Gravel, trace Silt, moderate oil-like odor, slight sheen, wet		142		Mod			
11						4"-8" Gray (GLEY 1, 3/N) fine SAND little Silt, moderate oil-like odor, slight sheen, wet							
12	S-7	12-14	24	14	12 10 26 26	S-7 : Dense, gray (GLEY 1, 3/N) fine to coarse SAND, little Gravel, trace Silt, moderate oil-like odor, slight sheen, wet		85		Mod			
13													
14	S-8	14-16	24	9	26 19 26 16	S-8 : Dense, gray (GLEY 1, 2.5/N) fine to coarse SAND, little (-) Gravel, trace Silt, slight oil-like odor, wet		2					
15													

Equipment Installed: Road Box; PVC Riser; Bentonite Seal; Filter Sand; Well Screen

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 6 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-305S

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:13 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-305S
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.)	Stratum Description	Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	8	5 5 5 5	S-9 : 0-2" Gray (GLEY 1, 2.5/N) fine to coarse SAND, little (-) Gravel, trace Silt, slight oil-like odor, wet 2"-8" Gray (GLEY 1, 4/N) fine SAND, little (+) Silt, trace Shell, wet	4 5	0.5		Slgt Slgt	16	FILL	-4.1	
17														
18	S-10	18-20	24	20	2 2 2 2	S-10 : Loose, gray (GLEY 1, 4/N) fine SAND, little (+) Silt, trace Shell, wet		0.4				SAND AND SILT/POSSIBLE ORGANIC SILT		Filter Sand
19														
20						End of exploration at 20 feet.					20		-8.1	
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														
33														

REMARKS

4 - 5 feet of casing was lost in the borehole from 9 to 14 feet bgs. The boring was aborted and resumed two feet to the north of the original location. The location was excavated via vacuum prior to resuming.
5 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 15 feet. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-5 feet bgs; Filter Sand placed in annulus from 4-20 feet bgs; Bentonite Seals installed from 2-4 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-305S

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-306S
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/WF
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 11.90
Final Boring Depth (ft.): 20
Date Start - Finish: 5/21/2014 - 5/22/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

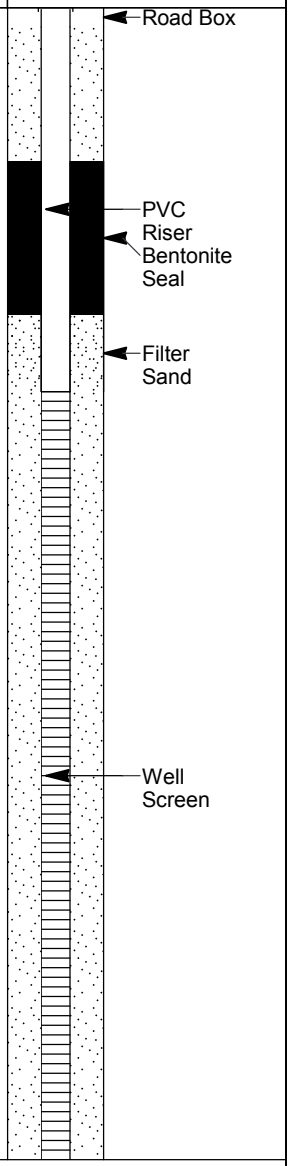
Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/19/14	NM	6.50	7 Days
6/3/14	NM	6.56	12 Days
6/13/14	NM	6.47	22 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)
0	S-1	0-2	N/A	N/A		S-1 : 0-6" Dark brown (10YR, 3/3) fine SAND, some Silt, trace Gravel, trace Roots, dry	1	ND					
1						6"-24" Black (10YR, 2/1) fine SAND, some Ash, little Silt, trace Gravel, dry	2	10					
2	S-2	2-4	N/A	N/A		S-2 : Black (10YR, 2/1) fine SAND, some Ash, little Silt, trace Gravel, trace Brick, trace glass, dry		32					
3													
4	S-3	4-6	N/A	N/A		S-3 : Black (10YR, 2/1) fine SAND, some Ash, little Silt, trace Gravel, trace Brick, trace glass, dry		9					
5													
6	S-4	6-8	24	12	41 11 23 24	S-4 : Dense, gray (GLEY 1, 2.5/N) fine to coarse SAND, trace Gravel, trace Silt, slight oil-like odor, slight sheen, wet, 4" lense of coal tar saturation present at 7.5 feet bgs with Coal tar-like odor		191		Mod		FILL	
7													
8	S-5	8-10	24	16	20 6 5 6	S-5 : Medium dense, gray (GLEY 1, 2.5/N) fine to coarse SAND, trace Gravel, trace Silt, slight sheen, slight oil-like odor, wet	3	637		Slgt			
9													
10	S-6	10-12	24	12	4 4 5 4	S-6 : Loose, gray (GLEY 1, 2.5/N) fine (+) to coarse SAND, little Silt, slight sheen, slight oil-like odor, wet		132		Slgt			
11													
12	S-7	12-14	24	15	6 6 10 8	S-7 : Medium dense, gray (GLEY 1, 2.5/N) fine (+) to coarse SAND, little (-) Silt, trace (-) Gravel, slight oil-like odor, slight sheen, wet		47		Slgt			
13													
14	S-8	14-16	24	9	13 6 2 1	S-8 : 0-4" Gray (GLEY 1, 2.5/N) fine (+) to coarse SAND, little (-) Silt, trace (-) Gravel, slight oil-like odor, slight sheen, wet 4"-9" Gray (GLEY 1, 4/N) fine SAND, some Silt,		11		Slgt			
15													

Equipment Installed



REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 6 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-306S

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:15 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-306S
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.) Stratum Description Elev.(ft.)	Equipment Installed
						wet					FILL	
16	S-9	16-18	24	6	5 16 9 3	S-9 : 0-3" Gray (GLEY 1, 4/N) fine SAND, some Silt, wet 3"-6" Gray (GLEY 1, 3/N) fine to coarse SAND, little Gravel, trace Silt, wet		2			16 -4.1	
17												
18	S-10	18-20	24	22	2 1 2 1	S-10 : Very loose, gray (GLEY 1, 4/N) fine SAND, some (+) Silt, wet		0.4			SAND AND SILT/POSSIBLE ORGANIC SILT	Filter Sand
19							4					
20						End of exploration at 20 feet.					20 -8.1	
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 15 feet. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-5 feet bgs; Filter Sand placed in annulus from 4-20 feet bgs; Bentonite Seals installed from 2-4 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-306S

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-307S
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Track Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 10.7
Final Boring Depth (ft.): 20
Date Start - Finish: 5/19/2014 - 6/3/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/29/14	NM	4.65	10 Days
6/3/14	NM	4.84	15 Days
6/6/14	NM	4.82	18 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.)	Stratum Description	Elev.(ft.)
0	S-1	0-2	N/A	N/A		S-1 : 0-2" Black (10YR, 2/1) ASPHALT 2"-8" Brown (10YR, 5/6) fine to medium SAND, trace Gravel, trace Silt, dry 8"-24" Black (10YR, 2/1) fine to medium SAND, little Ash, trace Coal, trace Slag, dry	1 2	NM 3 ND					
2	S-2	2-4	N/A	N/A		S-2 : Pale brown (10YR, 6/3) fine SAND, some Silt, trace Gravel, moist		ND					
4	S-3	4-6	N/A	N/A		S-3 : Dark gray (10YR, 4/2) fine SAND and SILT, trace Gravel, moderate oil-like odor, wet		506		Mod			
6	S-4	6-8	24	12	1 1 1 2	S-4 : Dark gray (10YR, 4/2) fine to coarse SAND, some Silt, little Gravel, slight sheen, oil-like saturation, moderate to strong oil-like odor, wet		334		Strg			
8	S-5	8-10	24	8	1 1 1 1	S-5 : Dark gray (10YR, 4/2) fine to coarse SAND, little Silt, little Gravel, sheen oil-like coating and bands of saturation, strong oil-like odor, wet	3	487		Strg		FILL	
10	S-6	10-12	24	6	2 3 1 1	S-6 : Dark gray (10YR, 4/2) fine to coarse SAND, little Silt, little Gravel, sheen oil-like coating and bands of saturation, strong oil-like odor, wet		717		Strg			
12	S-7	12-14	24	8	5 3 3 1	S-7 : Dark gray (10YR, 4/2) fine to coarse SAND, little (+) Gravel, trace (+) Silt, sheen, moderate oil-like odor, oil-like coating and bands of saturation, wet		438		Strg			
14	S-8	14-16	24	8	5 4 6 5	S-8 : Dark gray (10YR, 4/2) fine to coarse SAND, little (+) Gravel, trace (+) Silt, sheen, moderate oil-like odor, oil-like cocating and bands saturation, wet		408					

Equipment Installed: Road Box; Bentonite Seal; PVC Riser; Filter Sand; Well Screen

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 6 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-307S

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:16 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-307S
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.) Stratum Description Elev.(ft.)	Equipment Installed
16										Strg	FILL 16 -5.3	
17	S-9	16-18	24	14	1 1 1 1	S-9 : 0-6" Gray (10YR, 4/1) fine SAND and SILT, little Gravel, wet, slight oil-like odor 6"-10: Black (10YR, 2/1) fine to medium SAND, some Silt, trace Gravel, trace wood, trace Organics, wet 10"-14" Gray (10YR, 5/1) fine SAND, some Silt, trace Shells, trace Organics, wet		156 20 4		Slgt		Filter Sand
18	S-10	18-20	24	10	5 3 2 2	S-10 : Gray (10YR, 5/1) fine SAND, some Silt, trace Shells, trace Organics, wet		ND			SAND AND SILT/POSSIBLE ORGANIC SILT	
19							4					
20											20 -9.3	
21						End of exploration at 20 feet.						
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 13 feet. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-3 feet bgs; Filter Sand placed in annulus from 2-20 feet bgs; Bentonite Seals installed from 1-2 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox. Well was installed on 5/19/14 using hollow stem augers. Well installed three feet to the north of the boring location.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-307S

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-308S
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Track Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 19.71
Final Boring Depth (ft.): 22
Date Start - Finish: 5/19/2014 - 6/4/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/29/14	NM	2.76	10 Days
6/3/14	NM	2.98	15 Days
6/6/14	NM	2.97	18 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)
0	S-1	0-2	N/A	N/A		S-1 : 0-3" Black (10YR, 2/1) ASPHALT 3"-24" Dark brown (10YR, 2.2) fine to medium SAND, little Gravel, trace Ash, trace Silt, dry	1 2	NM 0.1					
2	S-2	2-4	N/A	N/A		S-2 : Brown (10YR, 4/3) fine SAND, little Silt, trace Gravel, moist		0.9					
4	S-3	4-6	24	0	1 2 1 2	S-3 : Loose soils-no recovery		NM					
6	S-4	6-8	24	7	4 2 1 2	S-4 : Loose, dark gray (10YR, 4/1) fine to coarse SAND, little Gravel, little (+) Silt, wet, sheen, bands of oil saturation, moderate to strong oil-like odor		536		Strg		FILL	
8	S-5	8-10	24	0	6 4 3 2	S-5 : Loose soils-no recovery, sheen on spoon	3	NM					
10	S-6	10-12	24	0	2 1 2 1	S-6 : Loose soils-no recovery, sheen on spoon		NM					
12	S-7	12-14	24	12	4 2 1 2	S-7 : Loose, dark gray (10YR, 4/1) fine to medium SAND, some Silt, trace Gravel, wet, sheen, slight to moderate oil-like odor		53		Slgt			
14	S-8	14-16	24	0	3 2 1 2	S-8 : Loose soils-no recovery, sheen on spoon		NM					

Equipment Installed: Road Box; Bentonite Seal; PVC Riser; Filter Sand; Well Screen

REMARKS

1 - The upper 4 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 4 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-308S

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:18 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
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National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-308S
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.) Stratum Description Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	20	4 2 1 2	S-9 : Loose, gray (10YR, 5/2) SAND and SILT, trace Organics, trace Shells, wet		27			FILL 16 3.7	
17												Filter Sand
18	S-10	18-20	24	3	2 2 5 6	S-10 : Loose, gray (10YR, 5/2) SAND and SILT, trace Organics, trace Shells, wet		13				
19							4				ORGANIC SILT/SAND AND SILT	
20	S-11	20-22	24	24	3 2 3 5	S-11 : Loose, gray (10YR, 5/2) SILT and SAND, trace Organics, trace Shells, trace wood, trace Fibers, wet		7				
21												
22						End of exploration at 22 feet.					22 -2.3	
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 12 feet. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-2 feet bgs; Filter Sand placed in annulus from 2-22 feet bgs; Bentonite Seals installed from 0.5-1.5 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox. Well was installed on 5/19/14 using hollow stem augers. Well was installed approximately five feet to the south of the boring location.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-308S

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-309D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Track Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 10.51
Final Boring Depth (ft.): 30
Date Start - Finish: 5/19/2014 - 5/20/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/29/14	NM	2.73	9 Days
6/16/14	NM	4.11	17 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : 0-3" Black (10YR, 2/1) ASPHALT 3"-24" Dark gray (10YYR, 4/1) fine to medium SAND, trace Gravel, trace Silt, trace Ash, dry	1 2	NM 0.2						Road Box
2	S-2	2-4	N/A	N/A		S-2 : Yellow brown (10YR, 5/4) fine SAND, some Silt, trace Gravel, dry		0.3						
4	S-3	4-6	N/A	N/A		S-3 : Yellow brown (10YR, 5/4) fine SAND, some Silt, trace Gravel, dry		0.3						PVC Riser
6	S-4	6-8	24	14	4 2 1 1	S-4 : Loose, gray (10YR, 4/2) fine SAND, some Silt, trace Gravel, wet, sheen, slight to moderate oil-like odor		263		Mod		FILL		
8	S-5	8-10	24	15	1 4 4 2	S-5 : Loose, gray (10YR, 4/2) fine SAND, some Silt, trace Gravel, wet, sheen, slight to moderate oil-like odor	3	281		Mod				
10	S-6	10-12	24	1	4 2 1 1	S-6 : Loose, black (10YR, 2/1) fine SAND, little Silt, little Gravel, little Coal, wet, oil-like staining, slight oil-like odor		90		Slgt				
12	S-7	12-14	24	3	1 1 1 1	S-7 : Very loose, black (10YR, 2/1) fine SAND, little Silt, little Gravel, little Coal, wet, oil-like staining		10						Filter Sand
14	S-8	14-16	24	15	4 2 3 1	S-8 : Loose, gray (10YR, 4/1) fine to Medium SAND, little Silt, little Gravel, wet		7.1						

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 6 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-309D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-309D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.) / Description / Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	4	1 1 1 1	S-9 : very loose, gray (10YR, 4/2) fine to coarse SAND, little Gravel, trace (+) Silt, wet, slight oil-like odor		34		Slgt	FILL	Filter Sand
17												
18	S-10	18-20	24	15	2 1 1 2	S-10 : Very soft, gray (10YR, 4/2) ORGANIC SILT, trace Gravel, trace Roots, trace Shells, wet		ND			18 -7.5	Bentonite Seal
19							4					Filter Sand
20	S-11	20-22	24	18	1 2 1 1	S-11 : Soft, gray (10YR, 4/2) ORGANIC SILT, trace Gravel, trace Shells, trace Roots, wet		0.5				
21												
22	S-12	22-24	24	20	2 1 1 2	S-12 : Soft, gray (10YR, 4/2) ORGANIC SILT, trace Gravel, trace Shells, trace Roots, wet		0.3				
23												
24	S-13	24-26	24	20	1 1 1 1	S-13 : Soft, gray (10YR, 4/2) ORGANIC SILT, trace Gravel, trace Shells, trace Roots, wet		ND			ORGANIC SILT	
25												Well Screen
26	S-14	26-28	24	20	2 1 1 1	S-14 : Soft, gray (10YR, 4/2) ORGANIC SILT, trace Gravel, trace Shells, trace Roots, wet		ND				
27												
28	S-15	28-30	24	20	1 1 1 1	S-15 : Soft, gray (10YR, 4/2) ORGANIC SILT, trace Gravel, trace Shells, trace Roots, wet		ND				
29												
30						End of exploration at 30 feet.					30 -19.5	
31												
32												
33												

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 30 feet bgs. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 19-30 feet bgs; Bentonite Seals installed from 18-19 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted roadbox.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-309D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-310
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 9.76
Final Boring Depth (ft.): 30
Date Start - Finish: 5/25/2014 - 5/28/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
NM	NM	NM	NM

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.)	Stratum Description	Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Light brown (10YR, 4/2) fine to coarse SAND, some Gravel, trace (+) Silt, trace Brick, trace Asphalt, trace Concrete, dry	1 2	ND						No Equipment Installed
2														
3	S-2	2-4	N/A	N/A		S-2 : Dark brown (10YR, 3/2) fine to coarse SAND, little Gravel, trace Silt, trace Brick, trace Ash, trace Slag, moist		ND						
4														
5	S-3	4-6	24	0	6 8 8 2	S-3 : Medium dense, granular soils-no recovery		NM				FILL		
6														
7	S-4	6-8	24	12	5 4 3 2	S-4 : 0-2" Black (10YR, 2/1) WOOD, wet, slight coal tar-like odor, slight sheen, stained 2"-12" Blue (GLEY, 5/5) SILT and SAND, trace Wood, wet		40 13		Slgt				
8														
9	S-5	8-10	24	24	6 18 7 20	S-5 : 0-12" Black (10YR, 2/1) SAND and SILT, little Organics, trace Wood, trace Gravel, wet, slight coal tar-like odor, coal tar bands of saturation 12"-24" Gray (10YR, 4/1) fine to medium SAND, little Silt, trace Gravel, trace Organics, wet, slight coal tar-like odor	3	201 106		Slgt Slgt				
10											10		-0.2	
11	S-6	10-12	24	18	4 1 1 1	S-6 : Loose, gray (10YR, 5/1) fine to medium SAND, some Silt, trace Gravel, trace Organics, wet		1						
12														
13	S-7	12-14	24	0	1 1 1 1	S-7 : Loose, granular soils-no recovery		NM				Possible FILL/POSSIBLE ORGANIC SILT		
14														
15	S-8	14-16	24	14	1 1 1 1	S-8 : Loose, gray (10YR, 5/1) fine to medium SAND, some Silt, trace Gravel, trace Organics, wet		1						

REMARKS

1 - The upper 4 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 4 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-310

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-310
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.) / Description / Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	24	1 1 1 1	S-9 : 0-20" Gray (10YR, 5/1) fine to medium SAND, some Silt, trace Gravel, trace Organics, wet 20"-24" Black (10YR, 2/1) fine to medium SAND, little Silt, little Organics, trace Gravel, wet		1 3.5			Possible FILL/POSSIBLE ORGANIC SILT 17 -7.2	
17												
18	S-10	18-20	24	24	1 1 1 1	S-10 : Soft, dark gray (10YR, 4/1) ORGANIC SILT, trace Shells, trace wood, trace Gravel, wet		ND				
19												
20	S-11	20-22	24	12	1 1 1 1	S-11 : Soft, dark gray (10YR, 4/1) ORGANIC SILT, trace Shells, trace wood, trace Gravel, wet		ND				
21												
22	S-12	22-24	24	18	1 1 1 1	S-12 : Soft, dark gray (10YR, 4/1) ORGANIC SILT, trace Shells, trace wood, trace Gravel, wet		ND				
23											ORGANIC SILT	
24	S-13	24-26	24	24	1 1 1 1	S-13 : Soft, dark gray (10YR, 4/1) ORGANIC SILT, trace Shells, trace wood, trace Gravel, wet		ND				
25												
26	S-14	26-28	24	24	1 1 1 1	S-14 : Soft, dark gray (10YR, 4/1), ORGANIC SILT, trace Shells, wet		ND				
27												
28	S-15	28-30	24	24	1 1 1 1	S-15 : Soft, dark gray (10YR, 4/1), ORGANIC SILT, trace Shells, wet		ND				
29												
30						End of exploration at 30 feet.					30 -20.2	
31												
32												
33												

REMARKS

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-310

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-311D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 10.03
Final Boring Depth (ft.): 30
Date Start - Finish: 5/19/2014 - 5/21/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/29/14	NM	4.74	8 Days
6/6/14	10:08	4.89	16 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
0	S-1	0-2	N/A	N/A		S-1 : Brown (10YR, 4/4) GRAVEL, some fine to medium Sand, trace Silt, dry	1 2	ND						Stand Pipe
2	S-2	2-4	N/A	N/A		S-2 : Dark brown (10YR, 3/2) GRAVEL, some fine to medium Sand, some Slag, trace Silt, moist		ND						
4	S-3	4-6	24	12	14 10 11 11	S-3 : Medium dense, gray brown (10YR, 4/2) fine to coarse SAND, some (+) Gravel, little Slag, trace (+) Silt, Wet		ND				FILL		PVC Riser
6	S-4	6-8	24	12	14 11 13 9	S-4 : Medium dense, gray brown (10YR, 4/2) fine to coarse SAND, some (+) Gravel, little Slag, trace (+) Silt, Wet		ND						
8	S-5	8-10	24	20	1 1 2 1	S-5 : Loose, gray (10YR, 5/2) fine to medium SAND, little Gravel, little Silt, trace Slag, wet	3	10.4						
10	S-6	10-12	24	20	1 1 1 1	S-6 : 0-10" Black (10YR, 2/1) fine SAND and SILT, some Organics, slight oil-like odor, wet 10"-20" Gray (10YR, 6/2) fine SAND and SILT, trace Gravel, slight to moderate blue staining, slight oil-like odor, wet		12.2 16.5		Slgt	10		0.0	
12	S-7	12-14	24	12	1 1 3 3	S-7 : Very loose, gray (10YR, 4/1) fine SAND and SILT, trace Gravel, slight blue staining, slight oil-like odor, wet		6.8		Slgt		Possible FILL/POSSIBLE ORGANIC SILT		Filter Sand
14	S-8	14-16	24	16	8 27 20 11	S-8 : Dense, gray black (10YR, 3/1) fine to medium SAND, some Silt, little Gravel, trace Roots, slight oil-like odor, wet		49						

REMARKS

1 - The upper 4 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 4 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-311D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-311D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.) / Stratum Description / Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	6	5 4 4 5	S-9 : Loose, gray (10YR, 4/2) fine SAND and SILT, trace Gravel, trace Roots, wet, Slight oil-like odor		23.5		Slgt		
17										Slgt	Possible FILL/POSSIBLE ORGANIC SILT	Bentonite Seal Filter Sand
18	S-10	18-20	24	10	3 1 2 3	S-10 : Very loose, black (10YR, 2/1) fine SAND and SILT, trace Gravel, trace Roots, wet, slight oil-like odor		10				
19							4			Slgt		Filter Sand
20	S-11	20-22	24	1	4 1 1 2	S-11 : 0-3" Black (10YR, 2/1) ORGANIC SILT, trace Gravel, trace Roots, wet, slight oil-like odor 3"-4" Gray (10YR, 4/2) ORGANIC SILT, wet		1.2 ND			20 -10.0	
21										Slgt		
22	S-12	22-24	24	8	1 2 1 3	S-12 : Soft, gray (10YR, 4/2) ORGANIC SILT, trace Gravel, trace Shells, wet		ND				
23												
24	S-13	24-26	24	22	1 1 1 1	S-13 : Very soft, gray (10 YR 4/2) ORGANIC SILT, trace Gravel, trace Shells, wet		ND				
25											ORGANIC SILT	Well Screen
26	S-14	26-28	24	26	3 1 2 3	S-14 : Very soft, gray (10 YR 4/2) ORGANIC SILT, trace Shells, wet		ND				
27												
28	S-15	28-30	24	24	1 1 1 1	S-15 : Very soft, gray (10 YR 4/2) ORGANIC SILT, trace Shells, wet		ND				
29												
30						End of exploration at 30 feet.					30 -20.0	
31												
32												
33												

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 30 feet bgs, 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 18-30 feet bgs; Bentonite Seals installed from 16-18 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-311D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-312D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: SN/WF
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 8.55
Final Boring Depth (ft.): 30
Date Start - Finish: 5/23/2014 - 5/23/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/29/17	NM	4.59	6 Days
6/6/14	10:15	4.61	14 Days
6/10/14	8:05	4.16	18 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
0	S-1	0-2	N/A	N/A		S-1 : Brown (10YR, 4/4) fine to coarse SAND, little Gravel, trace (+) Silt, trace Brick, trace Roots, dry	1 2	ND						Stand Pipe
1														
2	S-2	2-4	N/A	N/A		S-2 : Dark brown (10YR, 3/2) fine to coarse SAND, little Gravel, trace (+) SIlt, trace (+) Ash, trace Brick, trace Slag, moist		ND						Bentonite Seal
3												FILL		
4	S-3	4-6	24	7	7 4 1 2	S-3 : Loose, tan (10YR, 4/1) fine (+) to coarse SAND< little (-) Silt, trace (-) Gravel, slight oil-like odor, wet		15						
5										Slgt				
6	S-4	6-8	24	8	3 3 3 3	S-4 : Loose, gray (GLEY 1, 3/10Y) fine (+) to coarse SAND, little Silt, trace (-) Gravel, moderate oil-like odor, slight sheen, wet		955			6		2.6	
7										Mod				PVC Riser
8	S-5	8-10	24	0	6 2 1 1	S-5 : No recovery, loose granular soil	3	NM						
9														
10	S-6	10-12	24	0	WOH 1 1	S-6 : No recovery, loose granular soil		NM				Possible FILL		
11														
12	S-7	12-14	24	4	3 4 4 3	S-7 : Loose, gray (GLEY 1, 3/N) fine SAND, little (-) Silt, trace (-) Gravel, slight oil-like odor, slight sheen, wet		33						
13										Slgt				Bentonite Seal
14	S-8	14-16	24	10	5 6 6 3	S-8 : 0-6" Gray (GLEY 1, 3/N) fine SAND, little (-) Silt, trace (-) Gravel, slight oil-like odor, slight sheen, wet 6"-10" Gray (GLEY 1, 4/N) fine SAND, little Silt,		7		Slgt				
15											15		-6.5	

REMARKS

1 - The upper 4 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 4 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-312D

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:24 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-312D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
						slight oil-like odor, wet				Slgt				
16	S-9	16-18	24	18	WOH 1 2	S-9 : Very soft, gray (GLEY 1, 4/N) ORGANIC SILT, trace Shells, slight oil-like odor, wet		3						
17										Slgt				Filter Sand
18	S-10	18-20	24	16	1 1 1 3	S-10 : Very soft, gray (GLEY 1, 4/N) ORGANIC SILT, trace Shells, wet		1.2				ORGANIC SILT		
19							4							
20	S-11	20-22	24	16	1 1 1 3	S-11 : Very soft, gray (GLEY 1, 4/N) ORGANIC SILT, trace Shells, wet		0.4						
21														
22	S-12	22-24	24	20	3 6 6 7	S-12 : 0-5" Gray (GLEY 1, 4/N) ORGANIC SILT, trace Shells, wet 5"-20" Gray (GLEY 1, 4/N) fine to coarse SAND, little (+) Silt, trace Gravel, trace Shells, wet		0.2			22		-13.5	
23														
24	S-13	24-26	24	6	21 24 13 13	S-13 : Dense, gray (GLEY 1, 4/N) fine to coarse SAND, little (+) Gravel, trace Silt, wet		0.4						
25														Well Screen
26	S-14	26-28	24	5	9 8 8 11	S-14 : Medium dense, gray (GLEY 1, 4/N) fine to coarse SAND, little (+) Gravel, trace Silt, wet		0.2				SAND AND GRAVEL		
27														
28	S-15	28-30	24	10	15 13 12 14	S-15 : Medium dense, tan (10YR, 5/6) fine to coarse SAND, little (+) Gravel, trace (+) Silt, wet		0.6						
29														
30						End of exploration at 30 feet.					30		-21.5	
31														
32														
33														

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 30 feet bgs. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 14-30 feet bgs; Bentonite Seals installed from 1-2 and 13-14 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-312D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-312S
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: SN/WF	**Type of Rig:** Truck Mounted	**Boring Location:** See Plan	**H. Datum:** NAD 83
Drilling Co.: Geologic	**Rig Model:** CME	**Ground Surface Elev. (ft.):** 8.55	**V. Datum:** NAVD 88
Foreman: Dave Sheldon	**Drilling Method:** Vactor/Drive & Wash	**Final Boring Depth (ft.):** 13	
		Date Start - Finish: 5/23/2014 - 5/23/2014	

Hammer Type: Safety Hammer	**Sampler Type:** SS	**Groundwater Depth (ft.)**
Hammer Weight (lb.): 140	**Sampler O.D. (in.):** 2.0	
Hammer Fall (in.): 30	**Sampler Length (in.):** 24	
Auger or Casing O.D./I.D. (in): 4	**Rock Core Size:** N/A	

Date	Time	Water Depth	Stab. Time
5/29/14	NM	4.07	6 Days
6/16/14	10:12	4.20	14 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.)	Stratum Description	Elev.(ft.)	Equipment Installed
1		0-13				: None/Refer to GZ-312D	1					FILL		Stand Pipe
2														Bentonite Seal
3														PVC Riser
4														Filter Sand
5										Slgt				
6											6		2.6	
7										Mod				
8														Well Screen
9												POSSIBLE FILL		
10														
11							2							
12														
13										Slgt	13		-4.5	
14						End of exploration at 13 feet.								
15														

REMARKS

1 - No sampling completed at this location. See GZ-312D for sampling details. Stratum and impacts descriptions inferred from GZ-312D.
2 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 13 feet bgs,2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-3 feet bgs; Filter Sand placed in annulus from 2-13 feet bgs; Bentonite Seals installed from 1-2 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-312S

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-313D
SHEET: 1 of 3
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/WF
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 9.78
Final Boring Depth (ft.): 36
Date Start - Finish: 5/19/2014 - 5/27/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
5/29/14	NM	8.49	2 Days
6/10/14	7:55	7.23	14 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Red-brown (10YR, 4/4) fine to coarse SAND, little Slag, trace Ash, trace Silt, dry	1 2	0.4						Stand Pipe
3	S-2	2-4	N/A	N/A		S-2 : Yellow brown (10YR, 5/4) fine SAND, little Silt, trace Gravel, moist		0.1						Bentonite Seal
5	S-3	4-6	N/A	N/A		S-3 : Yellow brown (10YR, /4) fine SAND, little Silt, trace Gravel, slight oil-like odor, moist/wet		22		Slgt		FILL		
7	S-4	6-8	24	5	WOH 1 1 11	S-4 : Very loose, gray (GLEY 1, 4/10Y) fine to coarse SAND, little Gravel, trace Silt, trace Brick, wet		3						
9	S-5	8-10	24	0	WOH 1 3 4	S-5 : Loose, granular soil, no recovery	3	NM						
11	S-6	10-12	24	21	6 1 5 6	S-6 : Loose, gray (GLEY 1, 3/N) fine (+) to coarse SAND, little Silt, trace Gravel, slight oil-like odor, slight sheen, wet		242		Slgt	10		-0.2	
13	S-7	12-14	24	13	9 8 9 9	S-7 : Medium dense, gray (GLEY 1, 3/N) fine (+) to coarse SAND, little Silt, trace Gravel, slight oil-like odor, slight sheen, wet		108		Slgt		Possible FIll/Sands		PVC Riser
15	S-8	14-16	24	110	8 9 4 3	S-8 : Medium dense, gray (GLEY 1, 3/N) fine to coarse SAND, little (-) Gravel, little (-) Silt, slight oil-like odor, slight sheen, wet		104						Filter Sand

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 6 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-313D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-313D
SHEET: 2 of 3
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.) / Description / Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	6	4 5 8 6	S-9 : Medium dense, gray (GLEY 1, 3/N) fine to coarse SAND, little Gravel, trace (+) Silt, slight oil-like odor, slight sheen, wet		205		Slgt		
17										Slgt		
18	S-10	18-20	24	8	6 27 37 22	S-10 : Very dense, gray (GLEY 1, 4/10Y) fine to coarse SAND, little (+) Gravel, trace (+) Silt, slight oil-like odor, slight sheen, wet		252				
19							4			Slgt		
20	S-11	20-22	24	9	10 8 3 3	S-11 : Medium dense, gray (GLEY 1, 4/10Y) fine to coarse SAND, little (+) Gravel, trace (+) Silt, slight oil-like odor, wet		67			Possible FIll/Sands	
21										Slgt		
22	S-12	22-24	24	1	5 7 7 1	S-12 : Medium dense, gray (GLEY 1, 4/10Y) fine to coarse SAND, little (+) Gravel, trace (+) Silt, slight oil-like odor, wet		32				
23										Slgt		
24	S-13	24-26	24	4	15 12 18 15	S-13 : Dense, gray (GLEY 1, 3/10Y) fine to coarse SAND, little Gravel, trace (+) Silt, slight oil-like odor, wet		48				Bentonite Seal
25										Slgt		
26	S-14	26-28	24	9	14 18 9 9	S-14 : Medium dense, gray (GLEY 1, 4/10Y) fine to coarse SAND, little (+) Gravel, trace (+) Silt, wet		3			26 -16.2	
27												Well Screen
28	S-15	28-30	24	8	9 6 5 4	S-15 : Medium dense, gray (GLEY 1, 4/10Y) fine to coarse SAND, trace (+) Gravel, trace (+) Silt, wet		3				
29											SAND	
30	S-16	30-32	24	2	6 5 7 6	S-16 : Medium dense, gray (GLEY 1, 4/10Y) fine to coarse SAND, trace Gravel, trace Silt, wet		0.5				
31												Filter Sand
32	S-17	32-34	24	12	6 6 12 16	S-17 : Medium dense, gray (GLEY 1, 4/10Y) fine to coarse SAND, trace Gravel, trace Silt, wet		2				
33												

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 36 feet bgs, 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-26 feet bgs; Filter Sand placed in annulus from 0-2, 3-24 and 25-36 feet bgs; Bentonite Seals installed from 2-3 and 24-25 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-313D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-313D
SHEET: 3 of 3
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
34	S-18	34-36	24	11	15 13 18 18	S-18 : Dense, gray (GLEY 1, 5/10Y) fine to coarse SAND, little Gravel, trace (+) Silt, wet		1				SAND		Well Screen
35														
36											36		-26.2	
						End of exploration at 36 feet.								
37														
38														
39														
40														
41														
42														
43														
44														
45														
46														
47														
48														
49														
50														
51														

REMARKS

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-313D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-314D
SHEET: 1 of 3
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN	**Type of Rig:** Truck Mounted	**Boring Location:** See Plan	**H. Datum:** NAD 83
Drilling Co.: Geologic	**Rig Model:** CME	**Ground Surface Elev. (ft.):** 11.13	
Foreman: Dave Sheldon	**Drilling Method:** Vactor/Drive & Wash	**Final Boring Depth (ft.):** 34	**V. Datum:** NAVD 88
		Date Start - Finish: 5/27/2014 - 6/3/2014	

Hammer Type: Safety Hammer	**Sampler Type:** SS	**Groundwater Depth (ft.)**	
Hammer Weight (lb.): 140	**Sampler O.D. (in.):** 2.0		
Hammer Fall (in.): 30	**Sampler Length (in.):** 24		
Auger or Casing O.D./I.D. (in): 4	**Rock Core Size:** N/A		

Date	Time	Water Depth	Stab. Time
6/4/14	11:00	8.99	1 Day

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Gray brown (10YR, 5/2) fine SAND, little Gravel, little Silt, dry, moderate oil-like odor	1 2 3	61.2			0.2	CRUSHED STONE	10.9	Stand Pipe
3	S-2	2-4	N/A	N/A		S-2 : Black (10YR, 2/1) fine to coarse SAND, little Gravel, little Silt, trace Brick, trace Slag, oil-like staining, moderate oil-like odor, moist		108		Mod				
5	S-3	4-6	N/A	N/A		S-3 : Black (10YR, 2/1) fine to coarse SAND, little Gravel, little Silt, trace Brick, trace Slag, oil-like staining, moderate oil-like odor, moist		175		Mod				
7	S-4	6-8	24	8	15 16 15 9	S-4 : Dense, light gray (GLEY 1, 7/N) fine to medium SAND, some Gravel, trace Silt, slight oil-like odor, wet	4	9		Slgt		FILL		
9	S-5	8-10	24	11	7 6 6 9	S-5 : Medium dense, very dark brown (10YR, 3/1) fine to coarse SAND and GRAVEL, little Silt, slight oil-like odor, wet		26		Slgt				
11	S-6	10-12	24	6	4 4 WOH 1	S-6 : Loose, dark grayish brown (10YR, 4/2) fine to medium SAND, little Silt, trace Gravel, trace Brick, wet		3.6						
13	S-7	12-14	24	1	3 5 11 7	S-7 : Medium dense, black (10YR, 2/1) fine SAND and SILT, strong oil-like odor, oil-like staining, wet		136		Strg				PVC Riser Filter Sand
15	S-8	14-16	24	12	3 3 3 3	S-8 : Loose, black (10YR, 2/1) fine to medium SAND, some Silt, trace Gravel, strong oil-like odor, oil-like staining, slight sheen, wet		426						

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - 2" of crushed stone present at the surface.
4 - Water table observed at 6 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-314D

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:27 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-314D
SHEET: 2 of 3
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	15	3 2 3 3	S-9 : 0-7" Black (10YR, 2/1) fine to medium SAND, some Silt, trace Gravel, strong oil-like odor, oil-like staining, slight sheen, wet 7"-15" Black (10YR, 2/1) fine SAND and SILT, some Gravel, oil-like coating, strong oil-like odor, wet		408 230		Strg Strg		FILL		
17										Strg				
18	S-10	18-20	24	19	3 2 1 1	S-10 : 0-3" Black (10YR, 2/1) fine SAND and SILT, some Gravel, oil-like coating, strong oil-like odor, wet 3"-7" Very dark brown (10YR, 3/1) fine to coarse SAND, some Gravel, little Silt, strong oil-like odor, oil-like coating, wet 7"-19" Very dark greenish gray (GLEY 1, 4/5GY) SILTY CLAY, trace Shells, slight oil-like odor, wet		142 190 18		Strg Strg Slgt	19	-7.9		
19														
20	S-11	20-22	24	0	WOH 1 1	S-11 : Very soft cohesive soils, no recovery		NM						
21														
22	S-12	22-24	24	20	3 2 3 2	S-12 : Medium stiff, greenish gray (GLEY 5, 10Y) ORGANIC SILT, trace Shells, slight oil-like odor, wet	5	24		Slgt				Bentonite Seal
23														Filter Sand
24	S-13	24-26	24	5	WOH	S-13 : Very soft, greenish gray (GLEY 5, 10Y) ORGANIC SILT, trace Shells, slight oil-like odor, wet		19						
25										Slgt				
26	S-14	26-28	24	15	WOH	S-14 : Very soft, greenish gray (GLEY 5, 10Y) ORGANIC SILT, trace Shells, slight oil-like odor, wet		10				ORGANIC SILT		
27										Slgt				
28	S-15	28-30	24	2	WOH	S-15 : Very soft, greenish gray (GLEY 5, 10Y) ORGANIC SILT, trace Shells, slight oil-like odor, wet		2.5						
29										Slgt				Well Screen
30	S-16	30-32	24	23	WOH	S-16 : Very soft, very dark greenish gray (GLEY 1, 3/10Y) ORGANIC SILT, trace Shells, trace Wood fibers, faint organic odor, wet		2.3						
31														
32	S-17	32-34	24	17	WOH	S-17 : Very soft, very dark greenish gray (GLEY 1, 3/10Y) ORGANIC SILT, trace Shells, trace Wood fibers, faint organic odor, wet		1.4						
33														

REMARKS

5 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 34 feet bgs, 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-24 feet bgs; Filter Sand placed in annulus from 22-34 feet bgs; Bentonite Seals installed from 22-23 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-314D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-314D
SHEET: 3 of 3
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
34											34	ORGANIC SILT	-22.9	
						End of exploration at 34 feet.								
35														
36														
37														
38														
39														
40														
41														
42														
43														
44														
45														
46														
47														
48														
49														
50														
51														

REMARKS

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-314D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-314S
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 11.13
Final Boring Depth (ft.): 19
Date Start - Finish: 5/27/2014 - 6/3/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/4/14	11:05	9.05	1 Day

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
		0-19				: None/Refer to GZ-314D	1				0.2	CRUSHED STONE	10.9	Stand Pipe
1														PVC Riser
2														
3										Mod				Bentonite Seal
4							2							Filter Sand
5										Mod				
6														
7										Slgt				
8												FILL		
9										Slgt				
10														
11														
12														Well Screen
13										Strg				
14														
15														

REMARKS

1 - No sampling completed at this location. See GZ-314D for sampling details. Stratum and impacts descriptions inferred from GZ-314D.
2 - A groundwater monitoring well of the following construction was installed: 15 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 19 feet bgs. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-4 feet bgs; Filter Sand placed in annulus from 3-19 feet bgs; Bentonite Seals installed from 2-3 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-314S

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-314S
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.)	Stratum Description	Elev.(ft.)	Equipment Installed
16										Strg				
17										Strg		FILL		
18										Strg				
19										Strg Slgt	19		-7.9	
20						End of exploration at 19 feet.								
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														
33														

REMARKS

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-314S

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:29 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-315D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 10.17
Final Boring Depth (ft.): 30
Date Start - Finish: 5/28/2014 - 6/4/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/4/14	11:30	8.99	2 Hrs

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor
0	S-1	0-2	N/A	N/A		S-1 : Gray brown (10YR, /2) fine to coarse SAND, little Gravel, little Silt, dry, slight oil-like odor	1 2 3	41		Slgt
2	S-2	2-4	N/A	N/A		S-2 : Black (10YR, 2/1) fine to medium SAND, little Silt, little Gravel, little (-) Ash, trace Slag, trace Brick, trace coal, slight oil-odor, moist, oil-like staining		38		Slgt
4	S-3	4-6	N/A	N/A		S-3 : Black (10YR, 2/1) fine to medium SAND, little Silt, little Gravel, little (-) Ash, trace Slag, trace Brick, trace coal, slight oil-odor, moist, oil-like staining		37		Slgt
6	S-4	6-8	24	8	6 4 3 4	S-4 : 0-5" Yellow brown (10YR, 5/6 fine SAND and SILT, trace gravel, slight oil-like odor, wet 5"-8" Black (10YR, 2/1) fine to coarse SAND, some Silt, slight oil-like odor, black oil-like staining, wet	4	102 106		Slgt
8	S-5	8-10	24	8	3 2 2 3	S-5 : Loose green gray (GLEY 1, 10Y) fine SAND, some SIlt, moderate oil-like odor, slight sheen, wet, top 2" strong oil-like odor		186		Slgt
10	S-6	10-12	24	5	3 2 2 2	S-6 : Loose, very dark green gray (GLEY 1, 3/10Y) fine SAND, some Silt, slight sheen, strong oil-like odor, wet		188		Strg
12	S-7	12-14	24	11	2 1 2 2	S-7 : Very loose, very dark green gray (GLEY 1, 3/10Y) fine to medium SAND, some Gravel, some Silt, slight sheen, strong oil-like odor, wet		152		Strg
14	S-8	14-16	24	13	4 3 3 4	S-8 : 0-7" Very dark green gray (GLEY 1, 3/10Y) fine to medium SAND, some Gravel, some Silt, slight sheen, strong oil-like odor, wet, oil-like coating (4"-5")		90 114		

Depth(ft.)	Stratum Description	Elev.(ft.)
0.2	CRUSHED STONE	10.0
	FILL	

Equipment Installed: Stand Pipe; PVC Riser

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - 2" Crushed stone present at the surface
4 - Water table observed at 6 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-315D

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:30 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-315D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.) / Description / Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	7	2 3 4 7	7"-13" Black (10YR, 2/1) fine to coarse SAND, trace Shells, trace Gravel, oil-like coating, strong oil-like odor, wet S-9 : Loose, black (1-YR, 2/1) fine to coarse SAND, little Gravel, oil-like coated, strong oil-like odor, wet, from 4"-7" color changes to more yellow brown (10YR, 3/4)		6.6		Strg Strg	FILL	
17												
18	S-10	18-20	24	17	2 2 1 1	S-10 : Very soft, very dark green gray (GLEY 1, 3/10Y) ORGANIC SILT, trace Shells, slight oil-like odor, wet		26			18 -7.8	
19							5			Slgt		Bentonite Seal
20	S-11	20-22	27	9	WOH	S-11 : Very soft, very dark green gray (GLEY 1, 3/10Y) ORGANIC SILT, trace Shells, slight oil-like odor, wet		20				Filter Sand
21										Slgt		
22	S-12	22-24	24	22	WOH	S-12 : Very soft, very dark green gray (GLEY 1, 3/10Y) ORGANIC SILT, trace Shells, slight oil-like odor, wet		1.5				
23										Slgt		
24	S-13	24-26	24	24	WOH	S-13 : Very soft, very dark green gray (GLEY 1, 3/10Y) ORGANIC SILT, trace Shells, slight oil-like odor, wet		0.9			ORGANIC SILT	
25										Slgt		Well Screen
26	S-14	26-28	24	24	WOH	S-14 : Very soft, very dark green gray (GLEY 1, 4/10Y) ORGANIC SILT, trace Shells, trace fine Sand, trace Wood, wet		1.6				
27												
28	S-15	28-30	24	24	WOH	S-15 : Very soft, dark green gray, ORGANIC SILT, trace Shells, 1/8" seam of fine Sand at 18", wet		ND				
29												
30											30 -19.8	
						End of exploration at 30 feet.						
31												
32												
33												

REMARKS

5 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" diameter, schedule 40, flush joint, threaded, 10-slot PVC well screen at 30 feet bgs. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 19.5-30 feet bgs; Bentonite Seals installed from 18-19.5 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-315D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-316D
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Track Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 13.1
Final Boring Depth (ft.): 6.5
Date Start - Finish: 5/27/2014 - 6/2/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
NM	NM	NM	NM

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
0	S-1	0-2	N/A	N/A		S-1 : Brown (10YR, 4/4) fine to coarse SAND, some Gravel, little Silt, trace Brick, trace Slag, trace Coal, dry	1 2 3	8.5			0.2	CRUSHED STONE	12.9	No Equipment Installed
2	S-2	2-4	N/A	N/A		S-2 : Black (10YR, 2/1) fine to medium SAND, little Ash, trace Gravel, trace Silt, trace Brick, trace Slag, trace Coal, dry		9.1				FILL		
4	S-3	4-6	N/A	N/A		S-3 : Gray (10YR, 6/2) COBBLE, some Brick, some Gravel, little fine to coarse SAND, trace Silt, dry (Sample was not able to be collected)	4 5	NM			6		7.1	
6	S-4	6-6.5	6	0	8->100 >100	S-4 : Hit refusal on Concrete		NM			6.5	CONCRETE	6.6	
7						End of exploration at 6.5 feet.								

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - 3" Crushed stone present at the surface
4 - Water table observed not observed.
5 - Hit refusal at 6.5 feet bgs on concrete.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-316D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-317D
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 11.52
Final Boring Depth (ft.): 5.5
Date Start - Finish: 5/23/2014 - 6/5/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
NM	NM	NM	NM

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : 0-6" Light brown (10YR, 5/6) fine to coarse SAND, some Silt, trace (+) Gravel, dry 6"-24" Dark brown (10YR, 3/2) fine SAND, some (-) Silt, trace (+) Gravel, moist/dry	1 2	ND 3.1						No Equipment Installed
2														
3	S-2	2-4	N/A	N/A		S-2 : Dark brown (10YR, 3/2) fine SAND, some (-) Silt, trace (+) Gravel, moist/wet, pockets of oil-like staining, slight to moderate oil-like odor, wet		15.2		Mod		FILL		
4														
5	S-3	4-5.5	18	8	8 10 >50	S-3 : 0-4" Brown (10YR, 4/1) fine SAND and SILT, wet, strong oil-like odor 4"-8" Black (10YR, 2/1) fine to medium SAND, some Silt, some Ash, oil-like coating, strong oil-like odor, wet	3 4	182 487		Strg Strg	5.5		6.0	
6						End of exploration at 5.5 feet.								
7														
8														
9														
10														
11														
12														
13														
14														
15														

REMARKS

1 - The upper 4 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 4 feet bgs.
4 - Hit refusal at 5.5 feet bgs on unknown object.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-317D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-318D
SHEET: 1 of 3
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 11.13
Final Boring Depth (ft.): 34
Date Start - Finish: 5/23/2014 - 6/2/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/10/14	12:00	7.48	8 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Depth(ft.)	Stratum Description	Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : 0-6" Light brown (10YR, 5/6) fine to medium SAND, little Silt, little Gravel, dry 6"-12" Brown (10YR, 4/4) fine to coarse SAND, some Gravel, little Silt, dry 12"-24") brown (10YR, 4/4) fine to coarse SAND, some Gravel, trace Silt, trace Brick, some Coal, slight oil-like odor, moist/dry	1 2 3	ND ND 7.1		Slgt				Stand Pipe
2	S-2	2-4	N/A	N/A		S-2 : Brown (10YR, 4/4) fine to coarse SAND, some Gravel, trace Silt, trace Brick, trace Coal, slight oil-like odor, moist		30.5		Slgt				
3														
4	S-3	4-6	N/A	N/A		S-3 : Brown (10YR, 4/4) fine to coarse SAND, some Silt, little Gravel, trace Brick, trace Coal, slight oil-like odor, moist		19.5		Slgt				
5														
6	S-4	6-8	24	12	7 5 6 6	S-4 : Medium dense, dark greenish gray (GLEY 1, 4/56Y) fine SAND, some Gravel, little Silt, strong oil-like odor, wet	4	186		Strg				
7												FILL		
8	S-5	8-10	24	7	5 4 3 3	S-5 : Loose, dark greenish gray (GLEY 1, 4/56Y) fine SAND, some Gravel, (0-1" Silt lense) strong oil-like odor, wet		210		Strg				
9														
10	S-6	10-12	24	1	3 3 3 1	S-6 : Loose, dark gray (GLEY 1, 4/N) fine to medium SAND, some Gravel, trace Silt, strong oil-like odor, wet		185		Strg				PVC Riser
11														
12	S-7	12-14	24	14	3 3 4 5	S-7 : 0-9" Dark gray (GLEY 1, 4/N) fine to medium SAND, little Silt, strong oil-like odor, wet 9"-11" Dark gray (GLEY 1, 4/N) fine to coarse SAND and GRAVEL, trace Silt, strong oil-like odor, wet 11"-14" Dark gray (GLEY 1, 4/N) fine to medium SAND, little Silt, strong oil-like odor, wet		118 344 221		Strg				
13														
14	S-8	14-16	24	1	5 1 4 3	S-8 : Loose, dark gray (GLEY 1, 4/N) fine to coarse SAND, some Gravel, trace Silt, moderate oil-like odor, wet		76						
15														

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Poly sheeting observed at 6" and 12" bgs.
4 - Water table observed at 6 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-318D

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:32 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-318D
SHEET: 2 of 3
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	9	3 2 2 2	S-9 : 0-5" Black (10YR, 2/1) fine to coarse SAND, some Gravel, some Silt, moderate oil-like odor, wet 5"-9" Black (10YR, 2/1) fine SAND and SILT, little Gravel, moderate oil-like odor, wet		51 60		Mod Mod		FILL		
18	S-10	18-20	24	0	WOH 1 1	S-10 : Very loose, no recovery		NM						
20	S-11	20-22	24	6	WOH 1 1 1	S-11 : Very soft, dark gray (GLEY 1, 4/N) ORGANIC SILT, trace Gravel, trace Shells, slight Organic odor, wet	5	14			20		-8.9	
22	S-12	22-24	24	18	11 3 4 3	S-12 : Medium stiff, dark gray (GLEY 1, 4/N) ORGANIC SILT, trace gravel, trace fibers, (15"-16" Band of Gravel) slight Organic odor, wet		28						Bentonite Seal
24	S-13	24-26	24	19	WOH WOH 2	S-13 : Very soft, dark gray (GLEY 1, 4/N) ORGANIC SILT, slight Organic odor, wet		9						Filter Sand
26	S-14	26-28	24	19	2 3 3 2	S-14 : Medium stiff, very dark gray (GLEY 1, 4/N) ORGANIC SILT, trace fibers, slight Organic odor, wet		2				ORGANIC SILT		
28	S-15	28-30	24	24	WOH 2 1 3	S-15 : Soft, very dark gray (GLEY 1, 4/N) ORGANIC SILT, trace fibers, slight Organic odor, wet		ND						Well Screen
30	S-16	30-32	24	6	WOH 2 5 9	S-16 : Medium stiff, very dark gray (GLEY 1, 4/N) ORGANIC SILT, little Gravel, slight Organic odor, wet		0.5						
32	S-17	32-34	24	19	6 2 6 8	S-17 : Medium stiff, very dark gray (GLEY 1, 4/N) ORGANIC SILT, little Gravel, trace Shells, slight Organic odor, wet		ND						

REMARKS

5 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 34 feet bgs, 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-24 feet bgs; Filter Sand placed in annulus from 24-34 feet bgs; Bentonite Seals installed from 21-22 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-318D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-318D
SHEET: 3 of 3
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
34											34	ORGANIC SILT	-22.9	
						End of exploration at 34 feet.								
35														
36														
37														
38														
39														
40														
41														
42														
43														
44														
45														
46														
47														
48														
49														
50														
51														

REMARKS

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-318D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-319D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Track Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 13.20
Final Boring Depth (ft.): 30
Date Start - Finish: 5/27/2014 - 6/2/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/4/14	11:40	7.38	2 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor
0	S-1	0-2	N/A	N/A		S-1 : Dark brown (10YR, 4/4) fine to medium SAND, little Gravel, trace Gravel, dry	1 2 3	8.1		
2	S-2	2-4	N/A	N/A		S-2 : Dark brown (10YR, 3/2) fine to medium SAND, little Silt, trace Gravel, trace Slag, trace Ash, trace Brick, trace Coal, moist, slight oil-like odor		6.8		Slgt
4	S-3	4-6	N/A	N/A		S-3 : Dark brown (10YR, 3/2) fine to medium SAND, little Silt, trace Gravel, trace Slag, trace Ash, trace Brick, trace Coal, moist, slight oil-like odor		7.4		Slgt
6	S-4	6-8	24	10	9 6 8 7	S-4 : Medium dense, dark brown (10YR, 3/1), fine to coarse SAND, some Gravel, trace Silt, trace Slag, trace Ash, trace Coal, trace Brick, slight oil-like odor, bands of blue staining, wet	4	18.8		Slgt
8	S-5	8-10	24	12	7 6 19 28	S-5 : Medium dense, dark brown (10YR, 3/1), fine to coarse SAND, some Gravel, trace Silt, trace Slag, trace Ash, trace Coal, trace Brick, slight oil-like odor, bands of blue staining, wet		17.8		Slgt
10	S-6	10-12	24	14	16 19 19 23	S-6 : Dense, gray brown (10YR, 5/2) fine to coarse SAND, little (+) Gravel, trace (-) Silt, trace Coal, trace Wood chips, blue staining, slight oil-like odor, wet		1.8		Slgt
12	S-7	12-14	24	12	21 23 19 23	S-7 : Dense, gray (10YR, 4/1) fine to coarse SAND, some Silt, little Gravel, slight oil-like odor, wet		4.8		Slgt
14	S-8	14-16	24	10	14 10 11 16	S-8 : Medium dense, brown (10YR, 5/1) fine to medium SAND, some Silt, little Gravel, wet		ND		

Depth(ft.)	Stratum Description	Elev.(ft.)
0.2	CRUSHED STONE	13.0
	FILL	

Equipment Installed: Stand Pipe; PVC Riser

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - 2" Crushed stone present at the surface.
4 - Water table observed at 6 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-319D

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:34 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-319D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	14	20 19 16 18	S-9 : Dense, gray (10YR, 5/1) fine to coarse SAND, little Gravel, little Silt, trace Wood chips, slight blue staining, wet		0.5						
17														Bentonite Seal
18	S-10	18-20	24	16	21 30 17 19	S-10 : Dense, gray (10YR, 5/1) fine to medium Sand, little Silt, trace Gravel, wet		0.5				FILL		
19							5							Filter Sand
20	S-11	20-22	24	18	10 9 12 13	S-11 : 0-5" Dark gray (10YR, 4/1) fine to coarse SAND, some Gravel, little Silt, slight blue staining, wet		0.4						
21						5"-18" Gray (10YR, 4/1) fine to medium SAND, little Silt, some Gravel, wet		0.3			21		-7.8	
22	S-12	22-24	24	18	20 19 20 14	S-12 : Dense, gray (20YR, 5/1) fine to coarse SAND, some Silt, little Gravel, wet		0.5						
23												SAND AND SILT		
24	S-13	24-26	24	18	14 9 12 14	S-13 : Medium dense, gray (10YR, 5/1) fine SAND, some Silt, trace Gravel, wet		ND						
25														Well Screen
26	S-14	26-28	24	12	13 8 19 15	S-14 : 0-8" Gray (10YR, 5/1) fine SAND, some Silt, trace Gravel, wet		ND			26		-12.8	
27						8"-12" Gray brown (10YR, 5/2) medium to course SAND, little Gravel, trace Silt, trace Organics, wet		0.2						
28	S-15	28-30	24	12	12 11 12 16	S-15 : Medium dense, gray brown (10YR, 5/2) fine to coarse SAND, little Gravel, trace Silt, wet		ND				SAND		
29														
30						End of exploration at 30 feet.					30		-16.8	
31														
32														
33														

REMARKS

5 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 30 feet bgs. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 18-30 feet bgs; Bentonite Seals installed from 16-18 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-319D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-320D
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Track Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 16.03
Final Boring Depth (ft.): 30
Date Start - Finish: 5/28/2014 - 6/5/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/11/14	9:10	8.99	6 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Gray brown (10YR, 4/2) fine to coarse SAND, little Gravel, little Silt, trace Brick, trace Slag, dry	1 2	ND						Stand Pipe
2	S-2	2-4	N/A	N/A		S-2 : Black (10YR, 2/2) fine to medium SAND, little Gravel, little Slag, trace Silt, trace Ash, trace clinker, trace Brick, moist		ND						
4	S-3	4-6	N/A	N/A		S-3 : Black (10YR, 2/2) fine to medium SAND, little Gravel, little Slag, trace Silt, trace Ash, trace clinker, trace Brick, moist		ND						
6	S-4	6-8	24	12	8 5 5 7	S-4 : Loose, gray brown (10YR, 5/2) fine SAND, some Silt, trace Gravel, wet		ND						
8	S-5	8-10	24	8	8 6 9 7	S-5 : 0-3" Brown (10YR, 5/3) fine SAND and SILT, little Gravel, wet 3"-8" Gray (GLEY 1, 5/N) fine to medium SAND, some Silt, some Gravel, wet	3	ND				FILL		
10	S-6	10-12	24	0	18 19 10 8	S-6 : No Recovery		NM						PVC Riser
12	S-7	12-14	24	0	8 12 13 13	S-7 : No recovery, sheen on spoon		NM						
14	S-8	14-16	24	7	12 6 2 3	S-8 : Loose, black (10YR, 2/1) fine to coarse SAND and GRAVEL, trace Brick, trace Silt, sheen, moderate oil-like odor, wet		195						

REMARKS

1 - The upper 6 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 7 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-320D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-320D
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
16	S-9	16-18	24	13	3 6 7 3	S-9 : Medium dense, black (10YR, 2/1) fine to coarse SAND, some Slag, little Gravel, trace Brick, slight oil-like odor, wet		20		Mod				
17										Slgt		FILL		
18	S-10	18-20	24	8	5 2 2 3	S-10 : Soft, dark gray (10YR, 4/1) ORGANIC SILT, some Organics, slight oil-like odor, wet		4.1			18		-2.0	
19							4			Slgt				Bentonite Seal
20	S-11	20-22	24	21	1 1 2 2	S-11 : Soft, dark gray (10YR, 4/1) ORGANIC SILT, trace Roots, trace Organics, wet		2.5						Filter Sand
21												ORGANIC SILT		
22	S-12	22-24	24	24	WOH 5 6	S-12 : Soft, dark gray (10YR, 4;1) ORGANIC SILT, trace Gravel, trace Organic, wet		1.8						
23														
24	S-13	24-26	24	19	3 6 8 14	S-13 : Medium Stiff, brown (10YR, 5/3) fine SAND and SILT, wet		ND			24		-8.0	
25														Well Screen
26	S-14	26-28	24	12	3 9 16 15	S-14 : 0-6" Brown (10YR, 5/3) fine SAND and SILT, wet 6"-12" Gray (10YR, 5/1) SILT and fine SAND, wet		ND						
27												SAND AND SILT		
28	S-15	28-30	24	16	8 11 12 19	S-15 : Medium Stiff, gray (10YR, 5/1) SILT and fine SAND, wet		ND						
29														
30						End of exploration at 30 feet.					30		-14.0	
31														
32														
33														

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 34 feet bgs. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-20 feet bgs; Filter Sand placed in annulus from 19-30 feet bgs; Bentonite Seals installed from 18-19 feet bgs. Remaining annulus filled with filter sand. Well protected with a stand pipe.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-320D

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-321
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Ditch Witch
Rig Model: N/A
Drilling Method: Soil Vactor

Boring Location: See Plan
Ground Surface Elev. (ft.): 10.9
Final Boring Depth (ft.): 4
Date Start - Finish: 5/20/2014 - 5/20/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: N/A
Hammer Weight (lb.): N/A
Hammer Fall (in.): N/A
Auger or Casing O.D./I.D. (in): N/A

Sampler Type: N/A
Sampler O.D. (in.): N/A
Sampler Length (in.): N/A
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
NM	NM	NM	NM

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Brown gray (10YR, 6/2) fine SAND, some Silt, trace Gravel, dry	1 2	ND						No Equipment Installed
2	S-2	2-4	N/A	N/A		S-2 : Brown (10YR, 4/4) fine to Medium SAND, trace Gravel, trace Silt, moist	3	ND			4	FILL	6.9	
3						End of exploration at 4 feet.								
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														

REMARKS

1 - This boring was completed with an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 4 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-321

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-322
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Ditch Witch
Rig Model: N/A
Drilling Method: Soil Vactor

Boring Location: See Plan
Ground Surface Elev. (ft.): 10.9
Final Boring Depth (ft.): 3.5
Date Start - Finish: 5/20/2014 - 5/20/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: N/A
Hammer Weight (lb.): N/A
Hammer Fall (in.): N/A
Auger or Casing O.D./I.D. (in): N/A

Sampler Type: N/A
Sampler O.D. (in.): N/A
Sampler Length (in.): N/A
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
NM	NM	NM	NM

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
0	S-1	0-2	N/A	N/A		S-1 : Brown (10YR, 4/3) fine SAND, some Silt, little Gravel, dry	1	0.8						No Equipment Installed
1							2							
2	S-2	2-3.5	N/A	N/A		S-2 : Dark green gray (GLEY 1. 4/1) fine SAND and SILT, trace Gravel		0.6				FILL		
3							3				3.5		7.4	
4						End of exploration at 3.5 feet.								
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														

REMARKS

1 - This boring was completed with an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 3.5 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-322

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-323
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Ditch Witch
Rig Model: N/A
Drilling Method: Soil Vactor

Boring Location: See Plan
Ground Surface Elev. (ft.): 11.9
Final Boring Depth (ft.): 5
Date Start - Finish: 5/20/2014 - 5/20/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: N/A
Hammer Weight (lb.): N/A
Hammer Fall (in.): N/A
Auger or Casing O.D./I.D. (in): N/A

Sampler Type: N/A
Sampler O.D. (in.): N/A
Sampler Length (in.): N/A
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
NM	NM	NM	NM

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Brown (10R, 4/3) fine SAND, some Silt, trace Gravel, moist	1 2	ND						No Equipment Installed
2	S-2	2-4	N/A	N/A		S-2 : Brown (10YR, 4/3) fine SAND, some Silt, some Gravel, moist		ND				FILL		
3														
4	S-3	4-5	N/A	N/A		S-3 : Brown (10YR, 4/3) fine to medium SAND, some Gravel, little Sllt, moist	3	ND			5		6.9	
5						End of exploration at 5 feet.								
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														

REMARKS

1 - This boring was completed with an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - s
3 - Water table observed at 5 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-323

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:37 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: GZ-324
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Ditch Witch
Rig Model: N/A
Drilling Method: Soil Vactor

Boring Location: See Plan
Ground Surface Elev. (ft.): 11.2
Final Boring Depth (ft.): 5
Date Start - Finish: 5/20/2014 - 5/20/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: N/A
Hammer Weight (lb.): N/A
Hammer Fall (in.): N/A
Auger or Casing O.D./I.D. (in): N/A

Sampler Type: N/A
Sampler O.D. (in.): N/A
Sampler Length (in.): N/A
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
NM	NM	NM	NM

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Yellow brown (10YR, 6/4) fine to medium SAND, some Gravel, trace Silt, dry	1 2	3.4						No Equipment Installed
2	S-2	2-4	N/A	N/A		S-2 : Blue/black (GLEY 2, 2.5/B) fine SAND, little wood chips, purifier waste-like odor		33.5		Mod		FILL		
3														
4	S-3	4-5	N/A	N/A		S-3 : Blue/black (GLEY 2, 2.5/B) fine SAND, little wood chips, purifier waste-like odor	3	26.4		Mod				
5											5		6.2	
6						End of exploration at 5 feet.								
7														
8														
9														
10														
11														
12														
13														
14														
15														

REMARKS

1 - This boring was completed with an air knife and soil vactor truck. Soil samples were collected from the sidewalls. Therefore, blows and SPT values are not applicable for the vacuum excavated portion of the boring.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 5 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: GZ-324

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: RCA 12R
SHEET: 1 of 1
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Truck Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 17.87
Final Boring Depth (ft.): 15
Date Start - Finish: 5/22/2014 - 5/30/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/3/11	NM	10.02	4 Days
6/11/14	12:20	9.93	12 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Pen. (in)	Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1		0-15				: None/Refer to GZ-301D	1							Road Box
2							2							PVC Riser
3														
4														Bentonite Seal
5														Filter Sand
6														
7												FILL		
8														
9														
10														Well Screen
11														
12														
13														
14											14		3.9	
15						End of exploration at 15 feet.					15	POSSIBLE FILL/SANDS AND SILT	2.9	

REMARKS

1 - No sampling completed at this location. See GZ 301D for sampling details. Stratum and impacts descriptions inferred from GZ-301D.
2 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threafed, 10-slot PVC well screen at 15 feet bgs. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-5 feet bgs. Filter Sand placed in annulus from 4-15 feet bgs. Bentonite seals installed from 3-4 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted road box.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: RCA 12R

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:42 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: VHB-8R
SHEET: 1 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Logged By: MJB/SN
Drilling Co.: Geologic
Foreman: Dave Sheldon

Type of Rig: Track Mounted
Rig Model: CME
Drilling Method: Vactor/Drive & Wash

Boring Location: See Plan
Ground Surface Elev. (ft.): 12.6
Final Boring Depth (ft.): 16
Date Start - Finish: 5/28/2014 - 6/4/2014

H. Datum: NAD 83
V. Datum: NAVD 88

Hammer Type: Safety Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D. (in): 4

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: N/A

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
6/4/14	14:25	5.15	30 Mins
6/11/14	9:50	4.54	7 Days

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
1	S-1	0-2	N/A	N/A		S-1 : Light brown (10YR, 4/4) fine to medium SAND< some Silt, little Gravel, trace Roots, dry	1 2	ND						Road Box
2	S-2	2-4	N/A	N/A		S-2 : Light brown (10YR, 4/4) fine to Medium SAND, some Silt, little Gravel, trace (-) Roots, dry		ND						Bentonite Seal, PVC Riser, Filter Sand
3							3					FILL		
4	S-3	4-6	24	10	5 4 4 6	S-3 : Loose, light brown (10YR, 4/4) fine SAND, little Silt, trace Gravel, dry		0.4						
5														
6	S-4	6-8	24	12	3 1 3 2	S-4 : 0-6" Loose, light brown (10YR, 4/4) fine SAND, little Silt, trace Gravel, dry 6"-12" Loose, dark brown (10YR, 3/3) fine SAND, some Silt, wet		2.4			6		6.6	
7														Well Screen
8	S-5	8-10	24	11	1 2 5 5	S-5 : Loose, brown (10YR, 4/3) fine to medium SAND, little Silt, trace Gravel, wet		0.4						
9														
10	S-6	10-12	24	11	4 4 4 6	S-6 : Loose, light brown (10YR, 4/4) fine to medium SAND, little SIlt, trace Gravel, wet		0.4				Possible FILL/SAND		
11														
12	S-7	12-14	24	12	6 11 11 12	S-7 : Medium dense, light brown (10YR, 4/4) fine to medium SAND, little Silt, wet		0.2						
13														
14	S-8	14-16	24	14	6 5 6 6	S-8 : Medium dense, light brown (10YR, 4/4) fine to medium SAND, little Silt, wet		0.3						Filter Sand
15														

REMARKS

1 - The upper 4 feet was cleared using an air knife and soil vactor truck. Soil samples were collected from the sidewalls.
2 - The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using a miniRae 3000 Photoionization Detector (PID) equipped with a 10.6 eV Lamp calibrated to a 100 ppmv isobutylene standard. ND indicates reading below the instruments detection limit of approximately 0.1 ppmv. N/A-Not Applicable, NM-Not Measured, bgs-below ground surface, WOH-Weight of Hammer
3 - Water table observed at 4.5 feet bgs.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: VHB-8R

GZA TEMPLATE TEST BORING W/EQUIP NGRIDNE; 12/28/2015; 2:41:43 PM

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

National Grid
642 Allens Avenue
Providence, Rhode Island

EXPLORATION NO.: VHB-8R
SHEET: 2 of 2
PROJECT NO: 33554
REVIEWED BY: MSK

Depth (ft)	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Blows (per 6 in.)	Sample Description Modified Burmister	Remark	Field Test Data	Visual	Odor	Stratum Depth(ft.)	Stratum Description	Stratum Elev.(ft.)	Equipment Installed
16											16	Possible FILL/SAND	-3.4	Filter Sand
						End of exploration at 16 feet.	4							
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														
33														

REMARKS

4 - A groundwater monitoring well of the following construction was installed: 10 feet of 2" Diameter, Schedule 40, flush joint, threaded, 10-slot PVC well screen at 12 feet bgs. 2" Diameter, Schedule 40, flush joint, threaded PVC Riser installed from 0-2 feet bgs. Filter Sand placed in annulus from 1.5-16 feet bgs. Bentonite seals installed from 0.5-1.25 feet bgs. Remaining annulus filled with filter sand and clean soil cuttings. Well protected with a flush mounted road box.

See Log Key for explanation of sample description, identification procedures, and visual and odor impacts. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: VHB-8R

TEST PIT LOG

TEST PIT FIELD LOG

GZA GEOENVIRONMENTAL, INC. 530 BROADWAY, PROVIDENCE, RI GEOTECHNICAL/GEOHYDROLOGICAL CONSULTANTS	PROJECT CLIENT: National Grid LOCATION: 642 Allens Avenue Providence, Rhode Island	TEST PIT NO.: TP-301 FILE NO.: 33554 DATE: 6/17/14

EXCAVATION EQUIPMENT

GZA ENGINEER: Sophia Narkiewicz
CONTRACTOR: Clean Harbors
OPERATOR: Victor Delgado
WEATHER: Sunny 70s
MAKE: CAT
MODEL: 430E
CAPACITY: ICY
REACH: 15 feet

DATUM: N/A
GROUND ELEV.: NM
TIME STARTED: 0800
TIME COMPLETED: 1600

DEPTH		PPM		EXCAV. EFFORT	BOULDER COUNT QTY. CLASS	REMARK NO.
	0.0.5'	0	Gray 3/4" Crushed Stone, Dry			
-1-	0.5'-1'	0	Gray (10YR, 5/2) fine to coarse SAND, little Gravel, trace Silt, Dry	E	--	
-2-	1.5'-5.5'	0	Dark brown (10YR, 3/2) fine to coarse SAND, little Gravel, little Silt, trace Coal, trace	E	--	1
-3-			Wood, trace Brick, trace Metal, trace Slag, trace construction debris	E	--	
-4-						
-5-						
	5.5'-13'	195	Black (10YR, 2/2) fine to coarse SAND, little Gravel, little Cobble, trace Slag, trace			2
-6-			Silt, trace Wood, trace metal, trace (+) Coal, trace (+) Brick, moderate oil-like odor,	E	--	3
-7-			trace blue staining, oil-like staining			
-8-						
-9-						
-10-						
-11-			▽			
-12-						
						4
-13-	13' +	NM	Gray (10YR, 5/2) ORGANIC SILT, Wet	E	--	5
						6
-14-						

REMARKS:

N/A=Not Applicable
NM=Not Measured

1. Poly layer observed at 1.5 feet bgs and 5.5 feet bgs
2. Pile/wood observed at 7 feet bgs and 10 feet bgs.
3. PID reading around hole around 6 ppm.
4. Water observed at 11 feet bgs.
5. LNAPL seeping in from the south at the water table.
6. Recovery well (12" diameter) set at 13.25 feet bgs-screened from 8 to 13 feet bgs.

TEST PIT PLAN

10
5
NORTH
VOLUME= 50 CY

LEGEND:

BOULDER COUNT

SIZE RANGE CLASSIFICATION	LETTER DESIGNATION
6"-18"	A
18"-36"	B
36" OR LARGER	C

PROPORTIONS USED

TRACE (TR)	0-10%
LITTLE (LI)	10-20%
SOME (SO)	20-35%
AND	35-50%

EXCAVATION EFFORT

E	EASY
M	MODERATE
D	DIFFICULT

▽ OBSERVED GROUNDWATER LEVEL

SUMMARY TABLE OF WELL DEVELOPMENT RESULTS (2014)

SUMMARY OF WELL DEVELOPMENT RESULTS

642 Allens Avenue

Providence, Rhode Island

File No. 03.00033554.01

7/6/2018

Location ID	CONSTRUCTION INFORMATION							SURVEY INFORMATION			Gauging Data - June 2014				Standing Water Column	10 Times Standing Water Column	Water Added During Drilling	2014 WELL DEVELOPMENT ACTIVITIES				
	Date of Installation	Total Soil Boring Depth	Type of Well	Well Diameter	Screen Length	Depth to Screened Interval (feet bgs)		Reference Elevation			Depth to LNAPL	Depth to Water	Depth to DNAPL	Total Well Depth				Date of Well Development	Development Method	Water Removed During Development (gallons)	Turbidity at end of Development (NTU)	Notes
		feet bgs		inches	feet	Top	Bottom	Ground Surface	PVC	Casing	feet bgs	feet bgs	feet bgs	feet bgs	(feet)	(gallons)	(gallons)					
RCA-12R	5/30/2014	30.0	Roadbox	2	10.0	5	15	17.87	17.33	17.87	-	9.93	-	14.29	4.4	7.9	40	6/11/2014	Surge & Pump/Bail	45	<5	
GZ-301D	5/30/2014	30.0	Roadbox	2	10.0	20	30	17.74	17.33	17.74	-	9.99	-	28.85	18.9	34.1	80	6/11/2014	Surge & Pump/Bail	85	<5	
GZ-302S	6/3/2014	30.0	Roadbox	2	10.0	5	15	16.97	16.67	16.97	-	9.57	-	14.69	5.1	9.3	40	6/11/2014	Surge & Pump/Bail	45	<5	
GZ-302D	5/30/2014	30.0	Roadbox	2	10.0	20	30	16.97	16.59	16.97	-	9.47	-	29.5	20.0	36.2	65	6/11/2014	Surge & Pump/Bail	70	<5	
RCA-1	6/8/1994	17.5	Roadbox	2	10.0	6.5	16.5	12.21	11.82	12.21	-	6.32	-	15.5	9.2	16.6	NA	6/13/2014	Surge & Pump/Bail	17	<5	
RCA-3	9/9/1994	28.0	Standpipe	2	10.0	6	16	9.40	11.44	11.88	-	9.23	Trace	17.7	8.5	15.3	NA	6/10/2014	Pump/Bail	21	<5	Slight sheen on purge water
RCA-14	9/12/1994	24.0	Standpipe	2	10.0	5	15	11.06	12.75	13.09	-	9.71	-	15.95	6.2	11.3	NA	6/10/2014	Surge & Pump/Bail	13	<5	
VHB-1	1/15/2002	14.0	Roadbox	2	10.0	2	12	10.55	10.33	10.55	-	4.65	-	10.9	6.3	11.3	NA	6/6/2014	Surge & Pump/Bail	25	<5	Slight sheen on purge water
VHB-3	1/14/2002	14.0	Standpipe	2	8.0	2	10	9.76	11.96	11.84	-	6.28	-	9.55	3.3	5.9	NA	6/6/2014	Surge & Pump/Bail	25	<5	Well went dry multiple times, slight sheen on purge water
VHB-7	1/14/2002	14.0	Standpipe	2	10.0	2	12	11.29	13.73	14.30	-	9.43	-	15.05	5.6	10.2	NA	6/10/2014	Surge & Pump/Bail	15	<5	Slight sheen on purge water
VHB-8R	6/4/2014	16.0	Standpipe	2	10.0	2	12	12.60	14.06	14.85	-	6.85	-	13.52	6.7	12.1	40	6/11/2014	Surge & Pump/Bail	40	<5	
VHB-10	1/15/2002	16.0	Standpipe	2	10.0	5	15	15.88	19.10	19.45	Trace	12.1	-	17.2	5.1	9.2	NA	6/11/2014	Pump/Bail	15	<5	
VHB-21	1/28/2003	16.0	Standpipe	2	10.0	6	16	11.09	13.65	13.80	9.11	9.12	-	16.65	7.5	13.6	NA	6/10/2014	Pump/Bail	20	<5	
GZ-303S	5/28/2014	30.0	Roadbox	2	10.0	5	15	13.78	13.28	13.78	-	6.52	-	14.9	8.4	15.1	40	6/11/2014	Surge & Pump/Bail	45	<5	
GZ-303D	6/3/2014	30.0	Roadbox	2	10.0	20	30	13.75	13.13	13.75	-	6.39	-	29	22.6	40.9	80	6/12/2014	Surge & Pump/Bail	80	<5	
GZ-304D	5/24/2014	30.0	Roadbox	2	10.0	20	30	12.41	11.95	12.41	-	6.55	-	29.7	23.2	41.8	70	6/13/2014	Surge & Pump/Bail	75	<5	
GZ-305S	5/22/2014	15.0	Roadbox	2	10.0	5	15	11.84	11.64	11.84	-	6.8	-	14.15	7.4	13.3	80	6/13/2014	Surge & Pump/Bail	85	<5	
GZ-306S	5/22/2014	15.0	Roadbox	2	10.0	5	15	11.90	11.49	11.90	-	6.59	-	14.9	8.3	15.0	80	6/13/2014	Surge & Pump/Bail	85	<5	
GZ-307S	6/3/2014	20.0	Roadbox	2	10.0	3	13	10.70	10.18	10.70	-	4.82	-	13.46	8.6	15.6	0	6/6/2014	Surge & Pump/Bail	30	<5	Well went dry multiple times
GZ-308S	6/4/2014	20.0	Roadbox	2	10.0	2	12	9.71	8.96	9.71	-	2.94	-	11.85	8.9	16.1	0	6/6/2014	Surge & Pump/Bail	15	<5	Well went dry multiple times - very low recharge
GZ-309D	5/20/2014	30.0	Roadbox	2	10.0	20	30	10.51	9.83	10.51	-	4.11	-	29	24.9	45.0	80	6/6/2014	Surge & Pump/Bail	80	<5	Well went dry multiple times - very low recharge
GZ-311D	5/21/2014	30.0	Standpipe	2	10.0	20	30	10.03	12.82	13.04	-	7.68	-	29.35	21.7	39.2	80	6/6/2014	Surge & Pump/Bail	60	<5	Well went dry multiple times
GZ-312S	5/23/2014	30.0	Standpipe	2	10.0	3	13	8.64	10.58	10.77	-	6.14	-	13.1	7.0	12.6	25	6/6/2014	Surge & Pump/Bail	45	<5	Well went dry multiple times
GZ-312D	5/23/2014	30.0	Standpipe	2	10.0	20	30	8.55	10.79	10.95	-	6.4	-	31.56	25.2	45.5	80	6/10/2015	Surge & Pump/Bail	85	<5	
GZ-313D	5/27/2014	36.0	Standpipe	2	10.0	26	36	9.78	11.64	11.79	-	9.04	-	37.7	28.7	51.8	80	6/10/2014	Surge & Pump/Bail	90	<5	
GZ-318D	6/2/2014	34.0	Standpipe	2	10.0	24	34	11.13	13.48	13.59	-	9.48	-	34.6	25.1	45.4	80	6/10/2014	Surge & Pump/Bail	80	<5	Well went dry multiple times
GZ-320D	6/5/2014	30.0	Standpipe	2	10.0	20	30	16.03	18.94	19.25	-	11.9	-	30.02	18.1	32.8	80	6/11/2014	Surge & Pump/Bail	85	<5	
RCA-5	9/7/1994	20.0	Standpipe	2	10.0	6	16	10.79	12.27	12.68	-	10.34	-	13.3	3.0	5.4	NA	6/12/2014	Surge & Pump/Bail	16	<5	
RCA-20	10/18/1995	20.0	Standpipe	2	10.0	3.5	13.5	11.01	12.95	13.25	-	9.19	-	11	1.8	3.3	NA	6/12/2014	Surge & Pump/Bail	15	<5	
RCA-34	2/29/1996	19.0	Standpipe	2	5.0	13	18	12.76	15.09	15.08	-	7.65	-	12.8	5.2	9.3	NA	6/12/2014	Surge & Pump/Bail	1	NA	Well went dry and did not recover
RCA-36	3/1/1996	16.0	Roadbox	2	10.0	5	15	10.72	10.51	10.72	-	9.88	-	12.9	3.0	5.5	NA	6/12/2014	Surge & Pump/Bail	15	<5	
VHB-20	1/22/2002	16.0	Standpipe	2	10.0	6	16	13.01	14.98	15.15	-	8.51	-	17	8.5	15.3	NA	6/12/2014	Surge & Pump/Bail	20	<5	
GZ-314S	6/3/2014	34.0	Standpipe	2	15.0	4	19	11.13	14.19	14.35	-	11.91	-	21.94	10.0	18.1	40	6/14/2014	Surge & Pump/Bail	45	<5	
GZ-314D	6/3/2014	34.0	Standpipe	2	10.0	24	34	11.22	14.11	14.24	-	11.83	-	37.00	25.2	45.5	85	6/14/2014	Surge & Pump/Bail	90	<5	
GZ-315D	6/4/2014	30.0	Standpipe	2	10.0	20	30	10.17	12.93	13.06	-	11.13	-	33.05	21.9	39.6	80	6/14/2014	Surge & Pump/Bail	80	<5	
GZ-319D	6/2/2014	30.0	Standpipe	2	10.0	20	30	13.19	14.90	15.50	-	9.86	-	32.23	22.4	40.4	80	6/14/2014	Surge & Pump/Bail	80	<5	

Notes:

= Shading indicates that the well is located in the Natural Gas Regulator Station Area

= Shading indicates that the well is located in the CNG Fueling Station Area

=Shading indicates that the well is located in the LNG Facility Area

1. PVC = Top of PVC well; ft. bgs = feet below ground surface
2. The ground surface, top of the PVC and top of casing was surveyed by GZA personnel between 2011 and 2014.
3. Elevations are relative to NAVD-1988
4. Development water was containerized in 55-gallon drums for subsequent characterization and disposal.

WELL ABANDONMENT LOGS

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: CHES RW-1

Date Abandoned: 6/27/16

GZA Job Number: 33554

Time Started: 1200

Site Address: 642 Allens Ave

Time Finished: 1300

Town, State: Providence, RI

Gauging date: 6/27/16

Gauging Time: 815

Well Diameter: 12”

Depth to LNAPL: -

Depth to Water: 7.9’

LNAPL Thickness: -

Depth to Bottom of the Well: 10.4’

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 8.6’

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 60

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

Sophia Narkiewicz

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: CHES RW-2 **Date Abandoned:** 6/27/16

GZA Job Number: 33554 **Time Started:** 1400

Site Address: 642 Allens Ave **Time Finished:** 1500

Town, State: Providence, RI

Gauging date: 6/27/16 **Gauging Time:** 800

Well Diameter: 12" **Depth to LNAPL:** -

Depth to Water: 7.3' **LNAPL Thickness:** -

Depth to Bottom of the Well: 10.40' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 7.4' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 80

Crew onsite: Damien Jacobs
David Proulx

GZA Personnel onsite: Matt Muto
Sophia Narkiewicz

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: CHES RW-3 **Date Abandoned:** 7/1/16

GZA Job Number: 33554 **Time Started:** 8:30

Site Address: 121 Terminal Road **Time Finished:** 10:30

Town, State: Providence, RI

Gauging date: 6/27/16 **Gauging Time:** 8:30

Well Diameter: 12" **Depth to LNAPL:** -

Depth to Water: 11' **LNAPL Thickness:** -

Depth to Bottom of the Well: 16' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 13' **DNAPL Thickness:** -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 76

Crew onsite: Damien Jacobs
David Proulx

GZA Personnel onsite: Matt Muto
Sophia Narkiewicz

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: CHES RW-4 **Date Abandoned:** 7/5/16

GZA Job Number: 33554 **Time Started:** 8:09

Site Address: 121 Terminal Road **Time Finished:** 8:45

Town, State: Providence, RI

Gauging date: 7/5/16 **Gauging Time:** 8:01

Well Diameter: 12" **Depth to LNAPL:** -

Depth to Water: 11.10' **LNAPL Thickness:** -

Depth to Bottom of the Well: 12.3' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 10' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 60

Crew onsite: David Sheldon **GZA Personnel onsite:** Matt Muto

Phil

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: CHES RW-5 **Date Abandoned:** 7/1/16

GZA Job Number: 33554 **Time Started:** 12:00

Site Address: 121 Terminal Road **Time Finished:** 12:35

Town, State: Providence, RI

Gauging date: 7/1/16 **Gauging Time:** 12:00

Well Diameter: 12" **Depth to LNAPL:** -

Depth to Water: 11.8' **LNAPL Thickness:** -

Depth to Bottom of the Well: 14.1' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 12' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 70.5

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: ESS-RW-1 **Date Abandoned:** 7/9/16

GZA Job Number: 33554.60 **Time Started:** 9:45

Site Address: 642 Allens Ave **Time Finished:** 10:45

Town, State: Providence, RI

Gauging date: 7/7/16 **Gauging Time:** 8:50

Well Diameter: 12" **Depth to LNAPL:** -

Depth to Water: 6.78' **LNAPL Thickness:** -

Depth to Bottom of the Well: 8.6' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 5.6' **DNAPL Thickness:** -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 120

Crew onsite: Justin **GZA Personnel onsite:** Sophia Narkiewicz

Hunter

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: ESS RW-2 **Date Abandoned:** 7/7/16

GZA Job Number: 33554.60 **Time Started:** 1100

Site Address: 642 Allens Ave **Time Finished:** 1200

Town, State: Providence, RI

Gauging date: 7/7/16 **Gauging Time:** 8:55

Well Diameter: 12" **Depth to LNAPL:** -

Depth to Water: 8.38' **LNAPL Thickness:** -

Depth to Bottom of the Well: 11.1' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 8.1' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 180

Crew onsite: Justin **GZA Personnel onsite:** Sophia Narkiewicz

Hunter

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: RW-1 **Date Abandoned:** 7/5/16

GZA Job Number: 33554 **Time Started:** 9:02

Site Address: 121 Terminal Road **Time Finished:** 9:39

Town, State: Providence, RI

Gauging date: 7/5/16 **Gauging Time:** 9:00

Well Diameter: 12" **Depth to LNAPL:** Trace

Depth to Water: 10.40' **LNAPL Thickness:** Trace

Depth to Bottom of the Well: 13.8' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 11' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 65

Crew onsite: David Sheldon **GZA Personnel onsite:** Matt Muto

Phil

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: RCA-3 **Date Abandoned:** 6/28/16

GZA Job Number: 33554 **Time Started:** 12:04

Site Address: 642 Allens Ave **Time Finished:** 12:11

Town, State: Providence, RI

Gauging date: 6/28/16 **Gauging Time:** 12:00

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 9.62' **LNAPL Thickness:** -

Depth to Bottom of the Well: 18' **Depth to DNAPL:** Trace

Depth to Bottom of Well (BGS): 16.1' **DNAPL Thickness:** Trace

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: RCA-5 **Date Abandoned:** 7/1/16

GZA Job Number: 33554 **Time Started:** 11:48

Site Address: 121 Terminal Road **Time Finished:** 12:00

Town, State: Providence, RI

Gauging date: 7/1/16 **Gauging Time:** 11:00

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 10' **LNAPL Thickness:** -

Depth to Bottom of the Well: 17.2' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 15' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2.5

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: RCA-7 **Date Abandoned:** 7/6/16

GZA Job Number: 33554 **Time Started:** 8:30

Site Address: 642 Allens Ave **Time Finished:** 9:30

Town, State: Providence, RI

Gauging date: - **Gauging Time:** -

Well Diameter: - **Depth to LNAPL:** -

Depth to Water: - **NAPL Thickness:** -

Depth to Bottom of the Well: - **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): - **DNAPL Thickness:** -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: Well already filled with concrete pull casing

Abandonment material: -

Quantity Used (in gallons): -

Crew onsite: David Sheldon
Phil

GZA Personnel onsite: Matt Muto

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Well Abandonment Form

Well ID: RCA-11 **Date Abandoned:** 6/27/16

GZA Job Number: 33554 **Time Started:** 11:08

Site Address: 642 Allens Ave **Time Finished:** 11:14

Town, State: Providence, RI

Gauging date: 6/27/16 **Gauging Time:** 11:00

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 7.06' **LNAPL Thickness:** -

Depth to Bottom of the Well: 14.95' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 12.44' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

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Well Abandonment Form

Well ID: RCA-13

Date Abandoned: 6/28/16

GZA Job Number: 33554

Time Started: 13:33

Site Address: 642 Allens Ave

Time Finished: 13:50

Town, State: Providence, RI

Gauging date: 6/28/16

Gauging Time: 13:30

Well Diameter: 2'

Depth to LNAPL: -

Depth to Water: N/A

LNAPL Thickness: -

Depth to Bottom of the Well: 6.7'

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 5.6'
(Well Filled with Roots)

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 1

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

Sophia Narkiewicz

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GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: RCA-14 **Date Abandoned:** 6/27/16

GZA Job Number: 33554 **Time Started:** 12:50

Site Address: 642 Allens Ave **Time Finished:** 12:54

Town, State: Providence, RI

Gauging date: 6/27/16 **Gauging Time:** 12:52

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 9.10' **LNAPL Thickness:** -

Depth to Bottom of the Well: 15.1' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 13.55' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: Damien Jacobs
David Proulx

GZA Personnel onsite: Matt Muto

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GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: RCA-20 **Date Abandoned:** 7/1/16

GZA Job Number: 33554 **Time Started:** 11:00

Site Address: 121 Terminal Road **Time Finished:** 11:15

Town, State: Providence, RI

Gauging date: 7/1/16 **Gauging Time:** 11:00

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 9' **LNAPL Thickness:** -

Depth to Bottom of the Well: 14' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 12' **DNAPL Thickness:** -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

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Well Abandonment Form

Well ID: RCA-29 **Date Abandoned:** 7/7/16

GZA Job Number: 33554.60 **Time Started:** 9:20

Site Address: 642 Allens Ave **Time Finished:** 9:35

Town, State: Providence, RI

Gauging date: 07/07/16 **Gauging Time:** 8:45

Well Diameter: 2" **Depth to LNAPL:** Trace

Depth to Water: 11.65 **LNAPL Thickness:** Trace

Depth to Bottom of the Well: 12.5' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 8.9' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2.5

Crew onsite: Justin **GZA Personnel onsite:** Sophia Narkiewicz

Hunter

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GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: RCA-32 **Date Abandoned:** 7/7/16

GZA Job Number: 33554.60 **Time Started:** 9:10

Site Address: 642 Allens Ave **Time Finished:** 9:20

Town, State: Providence, RI

Gauging date: 7/7/16 **Gauging Time:** 8:40

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 9.98' **LNAPL Thickness:** -

Depth to Bottom of the Well: 12.9' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 9.5' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2.5

Crew onsite: Justin **GZA Personnel onsite:** Sophia Narkiewicz

Hunter

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GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: RCA-33 **Date Abandoned:** 7/7/16

GZA Job Number: 33554.60 **Time Started:** 9:00

Site Address: 642 Allens Ave **Time Finished:** 9:10

Town, State: Providence, RI

Gauging date: 7/7/16 **Gauging Time:** 8:35

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 8.21' **LNAPL Thickness:** -

Depth to Bottom of the Well: 15.7' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 12' **DNAPL Thickness:** -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2.5 Gallons

Crew onsite: Justin **GZA Personnel onsite:** Sophia Narkiewicz

Hunter

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GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: RCA-38 **Date Abandoned:** 7/7/16

GZA Job Number: 33554.60 **Time Started:** 8:45

Site Address: 642 Allens Ave **Time Finished:** 9:00

Town, State: Providence, RI

Gauging date: 7/7/16 **Gauging Time:** 8:30

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 10.3' **LNAPL Thickness:** -

Depth to Bottom of the Well: 15.6' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 12' **DNAPL Thickness:** -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2.5

Crew onsite: Justin **GZA Personnel onsite:** Sophia Narkiewicz

Hunter

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Well Abandonment Form

Well ID: RCA-40

Date Abandoned: 7/1/16

GZA Job Number: 33554

Time Started: 12:38

Site Address: 121 Terminal Road

Time Finished: 13:15

Town, State: Providence, RI

Gauging date: 7/1/16

Gauging Time: 12:30

Well Diameter: 2”

Depth to LNAPL: 10.60

Depth to Water: 10.61’

LNAPL Thickness: .01

Depth to Bottom of the Well: 16.8’

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 15’

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2.5

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

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Well Abandonment Form

Well ID: U-1 **Date Abandoned:** 6/28/16

GZA Job Number: 33554 **Time Started:** 13:08

Site Address: 642 Allens Ave **Time Finished:** 13:16

Town, State: Providence, RI

Gauging date: 6/28/16 **Gauging Time:** 13:00

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 5.3' **LNAPL Thickness:** -

Depth to Bottom of the Well: 9.3 **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 7' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

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Well Abandonment Form

Well ID: VHB-3 **Date Abandoned:** 6/28/16

GZA Job Number: 33554 **Time Started:** 12:55

Site Address: 642 Allens Ave **Time Finished:** 13:05

Town, State: Providence, RI

Gauging date: 6/28/16 **Gauging Time:** 12:50

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 6.5' **LNAPL Thickness:** -

Depth to Bottom of the Well: 10.18' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 7.38' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

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Well Abandonment Form

Well ID: VHB-6 **Date Abandoned:** 6/28/16

GZA Job Number: 33554 **Time Started:** 13:20

Site Address: 642 Allens Ave **Time Finished:** 13:30

Town, State: Providence, RI

Gauging date: 6/28/16 **Gauging Time:** 13:20

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 9.8' **LNAPL Thickness:** -

Depth to Bottom of the Well: 11.2' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 8.9' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

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Well Abandonment Form

Well ID: VHB-7 **Date Abandoned:** 6/27/16

GZA Job Number: 33554 **Time Started:** 13:02

Site Address: 642 Allens Ave **Time Finished:** 13:07

Town, State: Providence, RI

Gauging date: 6/27/16 **Gauging Time:** 13:00

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 9.40 **LNAPL Thickness:** -

Depth to Bottom of the Well: 15.05 **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 12.25 **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

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Well Abandonment Form

Well ID: VHB-8R

Date Abandoned: 6/27/16

GZA Job Number: 33554

Time Started: 8:57

Site Address: 642 Allens Ave

Time Finished: 9:05

Town, State: Providence, RI

Gauging date: 6/27/16

Gauging Time: 8:57

Well Diameter: 2"

Depth to LNAPL: -

Depth to Water: 7.6'

LNAPL Thickness: -

Depth to Bottom of the Well: 13.7'

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 12.42'

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

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Well Abandonment Form

Well ID: VHB-10 **Date Abandoned:** 6/27/16

GZA Job Number: 33554 **Time Started:** 10:40

Site Address: 642 Allens Ave **Time Finished:** 10:48

Town, State: Providence, RI

Gauging date: 6/27/16 **Gauging Time:** 10:40

Well Diameter: 2" **Depth to LNAPL:** Trace

Depth to Water: 12.5' **LNAPL Thickness:** Trace

Depth to Bottom of the Well: 18' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 14.83' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2.5

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

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Well Abandonment Form

Well ID: VHB-13 **Date Abandoned:** 7/5/16

GZA Job Number: 33554 **Time Started:** 11:30

Site Address: 642 Allens Ave **Time Finished:** 12:00

Town, State: Providence, RI

Gauging date: 7/5/16 **Gauging Time:** 11:30

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 10.6' **LNAPL Thickness:** -

Depth to Bottom of the Well: 15.7' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 15.7' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: David Sheldon **GZA Personnel onsite:** Matt Muto

Phil

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Well Abandonment Form

Well ID: VHB-18

Date Abandoned: 6/27/16

GZA Job Number: 33554

Time Started: 11:14

Site Address: 642 Allens Ave

Time Finished: 11:27

Town, State: Providence, RI

Gauging date: 6/27/16

Gauging Time: 11:10

Well Diameter: 1" to 2"

Depth to LNAPL: -

Depth to Water: 5.93'

LNAPL Thickness: -

Depth to Bottom of the Well: 17'

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 9.81'

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

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Well Abandonment Form

Well ID: VHB-21

Date Abandoned: 6/28/16

GZA Job Number: 33554

Time Started: 1:55

Site Address: 642 Allens Ave

Time Finished: 2:02

Town, State: Providence, RI

Gauging date: 6/28/16

Gauging Time: 1:50

Well Diameter: 2"

Depth to LNAPL: 8.89

Depth to Water: 8.92'

LNAPL Thickness: .07

Depth to Bottom of the Well: 18.3'

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 15.9'

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

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Well Abandonment Form

Well ID: VHB-22

Date Abandoned: 6/28/16

GZA Job Number: 33554

Time Started: 11:40

Site Address: 642 Allens Ave

Time Finished: 11:50

Town, State: Providence, RI

Gauging date: 6/27/16

Gauging Time: 11:40

Well Diameter: 2"

Depth to LNAPL: -

Depth to Water: 9.02'

LNAPL Thickness: -

Depth to Bottom of the Well: 17.2'

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 15.3'

DNAPL Thickness: -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2.5

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

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Well Abandonment Form

Well ID: VHB-23

Date Abandoned: 6/28/16

GZA Job Number: 33554

Time Started: 11:29

Site Address: 642 Allens Ave

Time Finished: 11:37

Town, State: Providence, RI

Gauging date: 6/28/16

Gauging Time: 11:20

Well Diameter: 2”

Depth to LNAPL: -

Depth to Water: 9.09’

LNAPL Thickness: -

Depth to Bottom of the Well: 17.3’

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 15.85’

DNAPL Thickness: -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

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Well Abandonment Form

Well ID: GZA-204 **Date Abandoned:** 7/5/16

GZA Job Number: 33554 **Time Started:** 10:35

Site Address: 121 Terminal Road **Time Finished:** 11:15

Town, State: Providence, RI

Gauging date: 7/5/16 **Gauging Time:** 10:35

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 9.1' **LNAPL Thickness:** -

Depth to Bottom of the Well: 18.5' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 16.2' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: David Sheldon **GZA Personnel onsite:** Matt Muto

Phil

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GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: GZA-216 **Date Abandoned:** 7/5/16

GZA Job Number: 33554 **Time Started:** 10:01

Site Address: 121 Terminal Road **Time Finished:** 10:30

Town, State: Providence, RI

Gauging date: 7/5/16 **Gauging Time:** 10:00

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 8' **LNAPL Thickness:** -

Depth to Bottom of the Well: 18.6' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 16.7' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: David Sheldon **GZA Personnel onsite:** Matt Muto

Phil

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Well Abandonment Form

Well ID: GZ-311D

Date Abandoned: 6/28/16

GZA Job Number: 33554

Time Started: 12:43

Site Address: 642 Allens Ave

Time Finished: 12:52

Town, State: Providence, RI

Gauging date: 6/28/16

Gauging Time: 12:40

Well Diameter: 2"

Depth to LNAPL: -

Depth to Water: 8.29'

LNAPL Thickness: -

Depth to Bottom of the Well: 32.58'

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 29.83'

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling [Split Casing] Other

If other, explain: Perforated Riser Sections

Abandonment material: Grout

Quantity Used (in gallons): 6

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

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GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: GZ-312S **Date Abandoned:** 6/28/16

GZA Job Number: 33554 **Time Started:** 12:26

Site Address: 642 Allens Ave **Time Finished:** 12:48

Town, State: Providence, RI

Gauging date: 6/28/16 **Gauging Time:** 12:20

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 6.26' **LNAPL Thickness:** -

Depth to Bottom of the Well: 14.5' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 12.7' **DNAPL Thickness:** -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

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Well Abandonment Form

Well ID: GZ-312D

Date Abandoned: 6/28/16

GZA Job Number: 33554

Time Started: 12:15

Site Address: 642 Allens Ave

Time Finished: 12:24

Town, State: Providence, RI

Gauging date: 6/28/16

Gauging Time: 12:10

Well Diameter: 2"

Depth to LNAPL: -

Depth to Water: 7'

LNAPL Thickness: -

Depth to Bottom of the Well: 32.75'

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 30.65'

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling [Split Casing] Other

If other, explain: Perforated Riser Sections

Abandonment material: Grout

Quantity Used (in gallons): 7

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

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Well Abandonment Form

Well ID: GZ-313-D

Date Abandoned: 6/28/16

GZA Job Number: 33554

Time Started: 11:52

Site Address: 642 Allens Ave

Time Finished: 12:01

Town, State: Providence, RI

Gauging date: 6/28/16

Gauging Time: 11:50

Well Diameter: 2"

Depth to LNAPL: -

Depth to Water: 9.45'

LNAPL Thickness: -

Depth to Bottom of the Well: 38'

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 36.75'

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling [Split Casing] Other

If other, explain: Perforated Riser Sections

Abandonment material: Grout

Quantity Used (in gallons): 7

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

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Well Abandonment Form

Well ID: GZ-314-S

Date Abandoned: 7/1/16

GZA Job Number: 33554

Time Started: 10:45

Site Address: 121 Terminal Road

Time Finished: 11:00

Town, State: Providence, RI

Gauging date: 7/1/16

Gauging Time: 10:40

Well Diameter: 2"

Depth to LNAPL: -

Depth to Water: 12'

LNAPL Thickness: -

Depth to Bottom of the Well: 22'

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 20'

DNAPL Thickness: -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 4

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: GZ-314-D

Date Abandoned: 7/1/16

GZA Job Number: 33554

Time Started: 10:30

Site Address: 121 Terminal Road

Time Finished: 10:37

Town, State: Providence, RI

Gauging date: 7/1/16

Gauging Time: 10:30

Well Diameter: 2”

Depth to LNAPL: -

Depth to Water: 12’

LNAPL Thickness: -

Depth to Bottom of the Well: 36.9’

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 34’

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling [Split Casing] Other

If other, explain: Perforated Riser Sections

Abandonment material: Grout

Quantity Used (in gallons): 6

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: GZ-315-D

Date Abandoned: 7/1/16

GZA Job Number: 33554

Time Started: 11:30

Site Address: 642 Allens Ave

Time Finished: 11:45

Town, State: Providence, RI

Gauging date: 7/1/16

Gauging Time: 11:30

Well Diameter: 2”

Depth to LNAPL: -

Depth to Water: 12’

LNAPL Thickness: -

Depth to Bottom of the Well: 33’

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 31’

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling [Split Casing] Other

If other, explain: Perforated Riser Sections

Abandonment material: Grout

Quantity Used (in gallons): 5

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: GZ-318-D

Date Abandoned: 6/28/16

GZA Job Number: 33554

Time Started: 14:03

Site Address: 642 Allens Ave

Time Finished: 14:07

Town, State: Providence, RI

Gauging date: 6/28/16

Gauging Time: 14:00

Well Diameter: 2”

Depth to LNAPL: -

Depth to Water: 9.35’

LNAPL Thickness: -

Depth to Bottom of the Well: 36.35’

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 34.15

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling [Split Casing] Other

If other, explain: Perforated Riser Sections

Abandonment material: Grout

Quantity Used (in gallons): 6

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: GZ-320D

Date Abandoned: 6/27/16

GZA Job Number: 33554

Time Started: 10:32

Site Address: 642 Allens Ave

Time Finished: 10:34

Town, State: Providence, RI

Gauging date: 6/27/16

Gauging Time: 10:30

Well Diameter: 2”

Depth to LNAPL: -

Depth to Water: 12.4’

LNAPL Thickness: -

Depth to Bottom of the Well: 10.4’

Depth to DNAPL: -

Depth to Bottom of Well (BGS): 8.6’

DNAPL Thickness: -

Method of abandonment (circle one):

[Removed Casing] Overdrilling [Split Casing] Other

If other, explain: Perforated Riser Sections

Abandonment material: Grout

Quantity Used (in gallons): 7

Crew onsite: Damien Jacobs

David Proulx

GZA Personnel onsite: Matt Muto

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: GZ-401 **Date Abandoned:** 6/27/16

GZA Job Number: 33554 **Time Started:** 10:23

Site Address: 642 Allens Ave **Time Finished:** 10:31

Town, State: Providence, RI

Gauging date: 6/27/16 **Gauging Time:** 10:20

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 8.50' **LNAPL Thickness:** -

Depth to Bottom of the Well: 15.85' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 12.92' **DNAPL Thickness:** -

Method of abandonment (circle one):

[Removed Casing] Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 3

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

GZA GeoEnvironmental, Inc.

Well Abandonment Form

Well ID: GZ-403 **Date Abandoned:** 6/2?/16

GZA Job Number: 33554 **Time Started:** 9:48

Site Address: 642 Allens Ave **Time Finished:** 9:58

Town, State: Providence, RI

Gauging date: 6/27/16 **Gauging Time:** 815

Well Diameter: 2" **Depth to LNAPL:** -

Depth to Water: 7.09' **LNAPL Thickness:** -

Depth to Bottom of the Well: 14.4' **Depth to DNAPL:** -

Depth to Bottom of Well (BGS): 11.55' **DNAPL Thickness:** -

Method of abandonment (circle one):

Removed Casing Overdrilling Split Casing Other

If other, explain: _____

Abandonment material: Grout

Quantity Used (in gallons): 2

Crew onsite: Damien Jacobs **GZA Personnel onsite:** Matt Muto

David Proulx

GZA GeoEnvironmental Inc.
530 Broadway, Providence, RI 02909
Tel. (401) 421-4140 • Fax. (401) 751-8613

APPENDIX C

GROUNDWATER SAMPLING LOW FLOW LOGS

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: RCA-1
Sample Date: 6/18/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14 - 13:35

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 15.5
Depth to LNAPL (feet): -
Depth to Water (feet): 6.32
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 4 to 14

Standing Water in Well (feet): 9.18
Well Diameter (in.) 2
Sample Depth (feet BGS): 9
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [ ] Yes [X] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 2
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 9:20 **Stop time:** 9:52

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:30	6.75	-115	7.07	0.74	0.72	16.6	6	150	
9:45	6.75	-119.5	7.11	0.72	0.55	16.5	5	150	
9:48	6.75	-119.7	7.09	0.72	0.54	16.5	7	150	
9:52	6.75	-119.9	7.10	0.71	0.53	16.6	6	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:52

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Slight oil-like odor Clarity: None

Total Purge Volume: 2 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: RCA-3
Sample Date: 6/18/2014
Sampler's Name: RT

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/18/14 -13:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 18
Depth to LNAPL (feet): -
Depth to Water (feet): 8.95
Depth to DNAPL (feet): trace
Well Screened Interval (feet BGS): 6 to 16

Standing Water in Well (feet): 9.05
Well Diameter (in.) 2
Sample Depth (feet BGS): 11
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 1
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 13:05 **Stop time:** 13:45

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
13:30	9.05	-18.9	7.27	232.7	0.44	15.5	15.6	200	
13:35	9.00	-23.5	7.33	234.6	0.29	15.3	14.2	200	
13:40	8.75	-26.7	7.39	231.1	0.29	15.7	13.9	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 13:45

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Slight Coal Tar-like Clarity: None

Total Purge Volume: 2 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Replaced tubing. Traces of DNAPL on old tubing.
Slight sheen on purge water.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: RCA-5
Sample Date: 6/19/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/2014 - 11:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	17.4	Standing Water in Well (feet):	7.01
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	10.39	Sample Depth (feet BGS):	11
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	6 to 16	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Solinist Peristaltic No. P-2
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI No. 2

INSTRUMENT MEASUREMENTS:

Start time: 11:25 **Stop time:** 12:40

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
12:15	10.80	-50.4	6.41	3.39	0.23	13.1	4	400	
12:28	10.80	-51.5	6.39	3.35	0.23	12.8	4	400	
12:31	10.81	-52.3	6.35	3.34	0.27	13.1	4	400	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:40

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Moderate oil-like Clarity: Clear

Total Purge Volume: 6 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: RCA-11
Sample Date: 6/20/2019
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-12:25

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 15
Depth to LNAPL (feet): -
Depth to Water (feet): 6.44
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 4 to 14

Standing Water in Well (feet): 8.56
Well Diameter (in.) 2
Sample Depth (feet BGS): 11
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [ ] Yes [X] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 8:30 **Stop time:** 9:15

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:00	6.72	473.8	3.16	0.67	5.57	17.1	10	150	
9:03	6.72	478	3.14	0.67	5.03	17.4	3	150	
9:06	6.72	481.5	3.14	0.69	5.09	17.4	4	150	
9:09	6.72	485	3.12	0.70	5.07	17.4	4	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:15

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Moderate purifier box-like Clarity: None

Total Purge Volume: 1 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Water-Blue color at beginning. Cleared up.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: RCA-12R
Sample Date: 6/18/2014
Sampler's Name: RT

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/18/14-8:08

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 14.7
Depth to LNAPL (feet): -
Depth to Water (feet): 10
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 4.7
Well Diameter (in.) 2
Sample Depth (feet BGS): 10
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 8:15 **Stop time:** 9:06

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
8:31	10.5	78.7	6.98	1765	0.65	17.1	5.15	250	
8:36	10.5	77.4	7.11	1790	0.57	17.1	6.56	250	
8:41	10.5	76.7	7.19	1823	0.55	17.0	5.80	250	
8:46	10.5	78.1	7.25	1830	0.68	16.9	5.50	250	
8:51	10.5	78.6	7.36	1856	0.57	17.0	4.59	250	
8:56	10.5	79.5	7.44	1879	0.47	17.0	4.92	250	
9:01	10.5	80.0	7.35	1902	0.49	17.3	4.71	250	
9:06	10.5	78.1	7.36	2068	0.48	17.1	4.80	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:06

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 3 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: RCA-13
Sample Date: 6/20/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-11:40

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	NM	Standing Water in Well (feet):	NM
Depth to LNAPL (feet):	NM	Well Diameter (in.)	2
Depth to Water (feet):	NM	Sample Depth (feet BGS):	10
Depth to DNAPL (feet):	NM	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	NM	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 2 **Flow-Thru Cell Vol (mL):** 250

Meter Type: YSI/Lamotte No. 3

INSTRUMENT MEASUREMENTS:

Start time: 10:10 **Stop time:** 10:40

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:21	NM	-77.8	6.91	0.191	1.31	13.7	8	250	
10:25	NM	-79.8	6.93	0.192	1.27	14.1	6	250	
10:28	NM	-79.2	6.95	0.191	1.23	14.1	5	250	
10:31	NM	77.9	6.94	0.191	1.25	14.3	5	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 10:40

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 1.5 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

NM-Not Measured
Can not gauge well-can push tubing through obstruction but not water level probe.
Obstruction at 7 feet bgs.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: RCA-22
Sample Date: 6/19/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-14:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	13.10	Standing Water in Well (feet):	3.35
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	9.75	Sample Depth (feet BGS):	10
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	unknown	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 2 **Flow-Thru Cell Vol (mL):** 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 12:45 **Stop time:** 13:40

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
13:04	9.80	-119.6	7.15	0.60	1.43	15.5	22	250	
13:07	9.76	-120.7	7.15	0.59	1.32	15.4	21	250	
13:10	9.76	-122.2	7.14	0.58	1.18	15.4	24	250	
13:13	9.76	-123.1	7.13	0.58	1.09	15.6	20	250	
13:16	9.76	-124.2	7.13	0.58	1.04	15.7	20	250	
13:19	9.76	-125.1	7.13	0.58	0.97	15.5	20	250	
13:22	9.76	-126.2	7.15	0.58	0.91	15.5	20	250	
13:25	9.76	-127.4	7.14	0.59	0.87	15.5	20	250	
13:28	9.76	-128.7	7.15	0.58	0.75	15.6	20	250	
13:31	9.76	-129.8	7.16	0.59	0.71	15.5	20	250	
13:34	9.76	-129.6	7.16	0.58	0.70	15.5	20	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 13:40

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Moderate oil-like Clarity: None

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Slight sheen on purge water.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: RCA-28
Sample Date: 6/19/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-11:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 17.8
Depth to LNAPL (feet): -
Depth to Water (feet): 11.84
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 5.96
Well Diameter (in.) 2
Sample Depth (feet BGS): 11
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 15:00 **Stop time:** 15:35

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
15:09	11.90	-140.4	7.04	1.23	0.39	21.7	110	250	
15:12	11.90	-142.8	7.03	1.19	0.38	21.0	120	250	
15:15	11.90	-142.2	7.03	1.13	0.36	21.9	124	250	
15.:18	11.90	-141.7	7.03	1.10	0.34	20.3	130	250	
15:21	11.90	-139	7.02	1.10	0.32	19.5	120	250	
15:24	11.90	-137.2	7.01	1.09	0.33	19.1	50	250	
15:27	11.90	-134.9	7.00	1.09	0.31	19.0	52	250	
15:30	11.90	-132.4	6.99	1.07	0.30	19.3	55	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 15:35

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Moderate oil-like Clarity: None

Total Purge Volume: 2 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Black at first then cleared up
Sheen on purge water.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: RCA-36
Sample Date: 6/19/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-12:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 13.16
Depth to LNAPL (feet): -
Depth to Water (feet): 10.15
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 3.01
Well Diameter (in.) 2
Sample Depth (feet BGS): 12
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [ ] Yes [X] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 2
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 9:35 **Stop time:** 10:30

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:53	11.86	-0.3	6.32	8.80	0.91	15.6	4	250	
9:56	11.86	-1.4	6.32	9.29	0.86	15.6	4	250	
10:10	11.86	-4.9	6.33	10.59	0.77	15.8	4	250	
10:13	11.86	-5.5	6.33	10.75	0.82	15.9	4	250	
10:16	11.86	-5.8	6.33	10.89	0.76	15.8	4	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 10:30

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Slight oil-like Clarity: None

Total Purge Volume: 2.5 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Partly Cloudy 70's

Well ID: RCA-38
Sample Date: 6/19/2014
Sampler's Name: EMB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/19/14-12:56

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	17.65	Standing Water in Well (feet):	8.89
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	8.76	Sample Depth (feet BGS):	9
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	4.5 to 14.5	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 12:57 **Stop time:** 13:42

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
13:05	9.61	-88	6.82	0.443	8.29	16.4	81	200	
13:15	9.85	-92	8.90	0.335	1.89	16.1	38	200	
13:20	9.99	-95	6.98	0.337	1.53	16.1	33	200	
13:25	10.00	-98	7.00	0.342	1.37	16.7	22	200	
13:30	10.01	-98	7.00	0.347	1.32	16.5	11	200	
13:35	10.02	-99	6.99	0.347	1.34	16.5	4	200	
13:37	10.02	-100	7.00	0.347	1.28	16.5	5	200	
13:40	10.03	-100	6.99	0.347	1.31	16.5	5	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 13:42

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: Very slightly orange Odor: None Clarity: Clear

Total Purge Volume: 2 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Orange purge water at start, cleared quickly.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: VHB-1
Sample Date: 6/19/2014
Sampler's Name: MJB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/17/14-9:47

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	11.55	Standing Water in Well (feet):	6.96
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	4.59	Sample Depth (feet BGS):	7
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	2 to 12	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 11:30 **Stop time:** 12:40

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
12:30	4.68	-142.3	7.58	966	0.18	16.7	8.90	200	
12:35	4.65	-142.8	7.58	963	0.12	15.6	8.87	200	
12:40	4.67	-142.7	7.58	959	0.11	15.6	8.50	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:40

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Moderate oil-like Clarity: None

Total Purge Volume: 2 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 90

Well ID: VHB-3
Sample Date: 6/19/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-11:20

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	10.1	Standing Water in Well (feet):	5.09
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	5.01	Sample Depth (feet BGS):	7
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	2 to 12	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 1

Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 14:00 **Stop time:** 14:40

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
14:21	5.40	-5.9	6.92	0.44	1.18	20.4	7	150	
14:24	5.40	-8.2	6.90	0.44	1.12	20.1	6	150	
14:27	5.40	-9.3	6.89	0.44	1.04	19.8	6	150	
14:30	5.40	-9.8	6.88	0.44	0.99	19.8	6	150	
14:33	5.40	-10.9	6.88	0.44	1.00	20.0	5	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 14:40

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: Clear

Total Purge Volume: 1.5 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: VHB-6
Sample Date: 6/20/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/20/2014-10:15

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	13.45	Standing Water in Well (feet):	5.37
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	8.08	Sample Depth (feet BGS):	8
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	2 to 12	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 8 **Flow-Thru Cell Vol (mL):** 250

Meter Type: YSI/Lamotte No. 3

INSTRUMENT MEASUREMENTS:

Start time: 10:15 **Stop time:** 10:50

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:24	8.69	27.9	6.16	0.17	1.62	14.5	80	250	
10:28	8.77	12.5	6.21	0.186	1.45	14.5	20	250	
10:36	8.74	-11.9	6.34	0.215	1.28	14.2	5	250	
10:41	8.75	-23.6	6.41	0.23	1.26	15.4	4	150	
10:44	8.72	-29	6.43	0.24	1.24	15.6	4	150	
10:47	8.69	-31.9	6.45	0.24	1.22	15.1	5	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 10:50

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: VHB-7
Sample Date: 6/20/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-9:40

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	15.1	Standing Water in Well (feet):	6.16
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	8.94	Sample Depth (feet BGS):	10
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	2 to 12	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 9:30 **Stop time:** 10:00

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:42	9.24	-55	6.35	0.20	0.41	14.3	11	250	
9:45	9.24	-53.3	6.40	0.20	0.36	14.1	8	250	
9:48	9.24	-68.2	6.42	0.20	0.37	14.0	5	250	
9:51	9.24	-71.6	6.44	0.20	0.49	13.9	4	250	
9:54	9.24	-73.6	6.45	0.20	0.42	13.7	5	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 10:00

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Moderate oil-like Clarity: None

Total Purge Volume: 1 gallon

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: VHB-8R
Sample Date: 6/14/2014
Sampler's Name: MJB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/17/14-14:25

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	13.8	Standing Water in Well (feet):	7.13
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	6.67	Sample Depth (feet BGS):	8
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	2 to 12	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7

Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 3

INSTRUMENT MEASUREMENTS:

Start time: 14:30 **Stop time:** 15:42

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
15:17	6.80	72.6	7.54	278.7	3.70	11.7	39	200	
15:23	6.85	90.4	7.53	279.3	3.49	11.6	40	200	
15:27	6.90	99.5	7.53	275.5	3.45	11.4	40	200	
15:32	6.92	109.9	7.48	274.5	3.29	11.3	40	200	
15:37	6.95	114.9	7.46	271.6	3.22	11.2	40	200	
15:42	6.92	119.8	7.45	276.2	3.09	11.2	40	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 15:42

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 2 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: VHB-10
Sample Date: 6/17/2014
Sampler's Name: MJB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/17/14-13:53

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 18.09
Depth to LNAPL (feet): trace
Depth to Water (feet): 12.32
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 5.77
Well Diameter (in.) 2
Sample Depth (feet BGS): 10
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 8
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 3

INSTRUMENT MEASUREMENTS:

Start time: 13:57 **Stop time:** 14:59

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
14:52	12.32	-58.7	7.55	291	0.26	14.9	13	150	
14:55	12.32	-58.0	7.51	278	0.22	14.9	14	150	
14:58	12.32	-59.2	7.49	278	0.30	14.9	14	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 14:59

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Slight oil-like Clarity: None

Total Purge Volume: 4 gallons

Tubing Volume: 0.15 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Trace LNAPL on probe.
Slight sheen on purge water.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: VHB-13
Sample Date: 6/19/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-13:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 15.95
Depth to LNAPL (feet): -
Depth to Water (feet): 10.45
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 7 to 17

Standing Water in Well (feet): 5.5
Well Diameter (in.) 2
Sample Depth (feet BGS): 13
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [ ] Yes [X] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 3
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 8:50 **Stop time:** 9:15

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:07	10.55	70.1	7.20	0.36	0.75	13.1	4	150	
9:10	10.55	69.3	7.19	0.36	0.73	13.2	4	150	
9:13	10.55	69.7	7.19	0.35	0.71	13.0	4	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:15

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 0.5 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: VHB-20
Sample Date: 6/19/2014
Sampler's Name: EMB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/19/14-14:10

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	17.54	Standing Water in Well (feet):	8.92
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	8.61	Sample Depth (feet BGS):	10
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	5 to 15	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 3
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 14:12 **Stop time:** 14:50

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
14:30	8.65	58	6.68	0.440	0.57	17.2	13	200	
14:35	8.61	54	6.58	0.454	0.52	18.6	10	200	
14:40	8.61	55	6.56	0.437	0.50	16.6	7	200	
14:45	8.62	56	6.55	0.436	0.40	16.8	5	200	
14:47	8.62	56	6.56	0.436	0.40	16.8	5	200	
14:50	8.62	56	6.56	0.435	0.40	16.8	5	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 14:50

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: Very slight yellow Odor: None Clarity: Clear

Total Purge Volume: 2 gallons

Tubing Volume: 0.15 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: VHB-21
Sample Date: 6/20/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-12:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	18.5	Standing Water in Well (feet):	9.64
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	8.86	Sample Depth (feet BGS):	11
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	6 to 16	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 8 **Flow-Thru Cell Vol (mL):** 250

Meter Type: YSI/Lamotte No. 3

INSTRUMENT MEASUREMENTS:

Start time: 11:00 **Stop time:** 12:00

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
11:48	9.02	-121.5	7.00	0.347	0.50	14.2	6	250	
11:51	9.08	-122.0	6.96	0.346	0.47	14.2	5	250	
11:54	9.08	-122.8	6.99	0.342	0.40	14.1	5	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:00

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Moderate oil like Clarity: None

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Sheen on purge water

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-301D
Sample Date: 6/18/2014
Sampler's Name: RT

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/18/14-9:45

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	29.7	Standing Water in Well (feet):	19.7
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	10	Sample Depth (feet BGS):	25
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	20 to 30	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 10:25 **Stop time:** 11:08

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:25	10.2	1.8	7.26	645	0.45	18.3	5.13	250	
10:30	10.2	-7.3	7.24	638	0.37	18.8	5.03	250	
10:35	10.2	-11.4	7.22	627	0.36	18.4	9.07	250	
10:41	10.2	-13.5	7.15	622	0.35	18.2	15.4	250	
10:45	10.2	-14.0	7.01	616	0.32	18.2	14.8	250	
10:51	10.2	-15.2	6.95	628	0.28	19.0	6.31	250	
10:56	10.2	-17.3	6.94	638	0.27	19.2	6.22	250	
11:00	10.2	-21.3	6.93	643	0.24	19.4	6.63	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 11:08

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 3 gallons

Tubing Volume: 0.3 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 90's

Well ID: GZ-302S
Sample Date: 6/18/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-13:10

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 14.7
Depth to LNAPL (feet): -
Depth to Water (feet): 9.42
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 5.28
Well Diameter (in.) 2
Sample Depth (feet BGS): 12
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 8
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 10:00 **Stop time:** 11:10

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:53	9.61	75	5.94	0.94	0.65	17.4	3	150	
10:57	9.61	86.8	5.93	0.91	0.45	16.4	3	150	
11:00	9.61	89	5.94	0.91	0.42	15.4	3	150	
11:03	9.61	95	5.94	0.90	0.38	15.4	3	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 11:10

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 4 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-302D
Sample Date: 6/18/2014
Sampler's Name: RT

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/18/14-9:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	29.7	Standing Water in Well (feet):	20.2
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	9.5	Sample Depth (feet BGS):	25
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	20 to 30	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7

Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 9:10 **Stop time:** 9:50

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:30	9.5	139.2	7.44	737	0.37	15.0	15.0	200	
9:35	9.5	145.9	7.01	741	0.35	16.3	17.0	200	
9:41	9.6	149.2	6.98	711	0.32	16.0	18.0	200	
9:46	9.6	150.2	6.96	704	0.31	16.1	16.3	200	
9:50	9.6	150.1	6.96	690	0.30	16.0	17.0	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:50

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 3 gallons

Tubing Volume: 0.3 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 90

Well ID: GZ-303S
Sample Date: 6/18/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-13:25

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 15.2
Depth to LNAPL (feet): -
Depth to Water (feet): 6.55
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 8.65
Well Diameter (in.) 2
Sample Depth (feet BGS): 10
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 2
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 10:00 **Stop time:** 10:40

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:24	6.56	-43.9	6.59	0.64	0.33	15.3	3	250	
10:27	6.57	-64	6.68	0.66	0.31	15.3	3	250	
10:30	6.58	-64.6	6.68	0.66	0.29	15.0	3	250	
10:33	6.58	-65.9	6.68	0.66	0.30	14.9	3	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 10:40

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Slight oil-like Clarity: None

Total Purge Volume: 2 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
Colected BD #1

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 90's

Well ID: GZ-303D
Sample Date: 6/18/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/18/2014-9:15

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	29.7	Standing Water in Well (feet):	23.52
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	6.18	Sample Depth (feet BGS):	25
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	20 to 30	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 1
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 9:25 **Stop time:** 10:25

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:11	6.39	42	6.24	0.54	0.62	15.3	4	150	
10:14	6.39	42.4	6.21	0.54	0.38	15.3	4	150	
10:17	6.39	43.2	6.20	0.54	0.33	15.3	5	150	
10:20	6.39	43.3	6.20	0.54	0.30	15.3	4	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 10:25

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Slight oil-like Clarity: None

Total Purge Volume: 3 gallons

Tubing Volume: 0.3 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 90's

Well ID: GZ-304D
Sample Date: 6/18/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-13:30

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	29.7	Standing Water in Well (feet):	23.15
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	6.55	Sample Depth (feet BGS):	25
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	20 to 30	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 1

Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 8:20 **Stop time:** 9:10

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
8:46	7.55	-122.3	7.12	1.634	0.41	14.7	11	250	
8:49	7.57	-125.6	7.13	1.395	0.36	14.6	12	250	
8:52	7.58	-126.9	7.14	1.157	0.33	14.6	14	250	
8:55	7.51	-127.6	7.14	1.168	0.31	14.8	12	250	
8:58	7.52	-127.8	7.14	1.21	0.31	14.8	15	250	
9:01	7.48	-128.3	7.14	1.16	0.31	14.8	14	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:10

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: Yellow Odor: Slight oil-like Clarity: None

Total Purge Volume: 4 gallons

Tubing Volume: 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 90's

Well ID: GZ-305S
Sample Date: 6/18/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-13:40

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	14.15	Standing Water in Well (feet):	7.35
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	6.8	Sample Depth (feet BGS):	10
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	5 to 15	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 2

Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 8:50 **Stop time:** 9:20

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:11	6.72	-132.5	7.07	0.59	0.36	14.4	10	150	
9:14	6.76	-135	7.08	0.59	0.33	14.3	10	150	
9:17	6.79	-137.1	7.09	0.59	0.32	14.4	11	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:20

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: Yellow Odor: Moderate oil-like Clarity: None

Total Purge Volume: 2 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Sheen on purge water.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 90's

Well ID: GZ-306S
Sample Date: 6/18/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-13:45

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	14.9	Standing Water in Well (feet):	8.31
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	6.59	Sample Depth (feet BGS):	10
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	5 to 15	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 1

Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 8:10 **Stop time:** 8:45

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
8:29	6.64	-157.2	7.06	338.1	0.47	14	14	150	
8:32	6.65	-158.6	7.06	336.7	0.37	14	14	150	
8:36	6.65	-157.9	7.07	334.6	0.33	13.8	16	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 8:45

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: Yellowish Odor: Moderate oil-like Clarity: None

Total Purge Volume: 1 gallon

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Sheen on purge water.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-307S
Sample Date: 6/17/2014
Sampler's Name: MJB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/17/14-9:05

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	14.18	Standing Water in Well (feet):	9.46
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	4.72	Sample Depth (feet BGS):	10
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	3 to 13	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 3

INSTRUMENT MEASUREMENTS:

Start time: 9:15 **Stop time:** 11:15

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:23	5.30	-47.3	6.52	526	1.24	16.2	7	150	
9:26	5.48	-43	6.24	488	0.76	16.0	8	150	
9:30	5.72	-27	6.10	481	0.43	16.1	8	150	
9:49	6.95	-48.7	6.17	484.1	0.30	15.9	27	150	
9:54	7.37	-60.4	6.24	486.3	0.30	15.6	26.5	150	
9:59	7.47	-69.9	6.30	475.6	0.26	15.6	21	150	
10:22	8.21	-98	7.18	426	0.16	13.7	23	150	
10:41	8.52	-92.8	7.27	422	0.31	13.8	16.4	150	
11:04	8.76	-83.6	7.31	401	0.36	13.8	17.8	150	
11:10	8.76	-83	7.32	395	0.36	13.8	14.6	150	
11:15	8.78	-78	7.27	392	0.64	13.9	13.6	150	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 11:15

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Slight oil-like Clarity: None

Total Purge Volume: 8 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Well did not stabilize, sample after 2 hours of pumping.
Tubing set at 10 feet bgs because well was going dry.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-308S
Sample Date: 6/17/2014
Sampler's Name: MJB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/17/14-12:15

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	11.6	Standing Water in Well (feet):	9.66
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	1.94	Sample Depth (feet BGS):	11
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	2 to 12	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 3

INSTRUMENT MEASUREMENTS:

Start time: 12:05 **Stop time:** 15:20

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
12:53	7.3	-88.6	7.41	573	1.19	16.9	23	200	
13:03	8.5	-76.4	8.31	674	1.21	14.6	25	200	at 13:08 paused
13:24	10.75	-76.3	7.41	597	0.72	16.1	29	150	
13:29	11.55	-72	7.42	532	0.64	16.2	29	150	
13:32									Well Dry

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 15:20

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Slight Oil-like Clarity: None

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Paused at 13:08 due to requiring hose extension of approximately 2' and wait for YSI to reboot approximately 5 minutes from resume of pumping for measure.
Allowed to recharge-returned to sample DTW when sampling =3.02
Tubing set at 11 feet bgs because well was going dry.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-309D
Sample Date: 6/17/2014
Sampler's Name: MJB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-13:55

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 29.9
Depth to LNAPL (feet): -
Depth to Water (feet): 4.44
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 20 to 30

Standing Water in Well (feet): 25.46
Well Diameter (in.) 2
Sample Depth (feet BGS): 25
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [ ] Yes [X] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 8
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 3

INSTRUMENT MEASUREMENTS:

Start time: 9:45 **Stop time:** 11:46

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
11:28	8.75	-120.6	7.81	1388	0.19	17.7	11.2	100	
11:33	8.75	-105.2	7.85	1567	0.14	17.8	9.82	100	
11:40	8.90	-90	7.89	1599	0.12	17.2	11.94	100	
11:43	8.92	-84	7.87	1680	0.12	17.4	13.8	100	
11:46	9.04	-95	7.86	1732	0.12	17.5	12.1	100	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 11:46

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Slight oil-like Clarity: None

Total Purge Volume: 2 gallons

Tubing Volume: 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 90's

Well ID: GZ-311D
Sample Date: 6/18/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/2014-11:10

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	32.7	Standing Water in Well (feet):	25.63
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	7.07	Sample Depth (feet BGS):	25
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	20 to 30	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 2 **Flow-Thru Cell Vol (mL):** 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 14:00 **Stop time:** 15:00

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
14:45	8.27	-192.4	12.47	2.75	0.09	15.8	5	250	
14:48	8.27	-198	12.48	2.75	0.07	15.9	5	250	
14:51	8.27	-201.2	12.48	2.76	0.05	15.7	5	250	
14:54	8.27	-203.8	12.53	2.79	0.05	15.8	5	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 15:00

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: Yellow Odor: Slight oil-like Clarity: None

Total Purge Volume: 3 gallons **Tubing Volume:** 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

pH-Clecked Cal solution-ok.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 90's

Well ID: GZ-312S
Sample Date: 6/18/2014
Sampler's Name: RT

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-11:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 15.35
Depth to LNAPL (feet): -
Depth to Water (feet): 6.1
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 3 to 13

Standing Water in Well (feet): 9.25
Well Diameter (in.) 2
Sample Depth (feet BGS): 8
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 14:45 **Stop time:** 15:17

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
14:54	6.0	57.3	7.32	250.8	0.65	16.9	12.0	250	
15:00	6.0	60.9	7.30	245.9	0.60	16.7	11.3	250	
15:06	6.0	59.9	7.30	236.3	0.60	16.4	10.8	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 15:17

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 3 gallons

Tubing Volume: 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-312D
Sample Date: 6/18/2014
Sampler's Name: RT

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 11/18/14-14:40

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 32.75
Depth to LNAPL (feet): -
Depth to Water (feet): 5.9
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 20 to 30

Standing Water in Well (feet): 26.85
Well Diameter (in.) 2
Sample Depth (feet BGS): 25
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 8
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 14:42 **Stop time:** 15:50

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
15:11	6.62	-193.7	7.89	0.92	0.29	15.5	2	250	
15:14	6.62	-182	7.71	0.92	0.31	15.4	2	250	
15:17	6.62	-171.9	7.56	0.91	0.3	14.9	2	250	
15:30	6.62	-144.1	7.44	0.90	0.37	16.4	2	250	
15:33	6.62	-148.5	7.40	0.88	0.36	15.6	2	250	
15:38	6.62	-149.1	7.41	0.88	0.32	16	2	250	
15:41	6.62	-149.2	7.43	0.88	0.32	16.1	2	250	
15:44	6.62	-149.5	7.41	0.87	0.30	16	2	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 15:50

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: Yellow Odor: None Clarity: None

Total Purge Volume: 3 gallons

Tubing Volume: 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-313D
Sample Date: 6/18/2014
Sampler's Name: RT

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/18/14-6:07

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	38.2	Standing Water in Well (feet):	29.2
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	9.0	Sample Depth (feet BGS):	31
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	26 to 36	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250
Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 13:09 **Stop time:** 14:07

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
13:51	8.4	-70.4	7.49	408.5	0.26	16.3	6.78	250	
13:56	8.5	-64.9	7.56	393.6	0.22	15.6	7.33	250	
14:01	8.5	-68.7	7.50	400.9	0.20	15.5	7.02	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 14:07

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 3 gallons
Tubing Volume: 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-314S
Sample Date: 6/19/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-14:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	21.94	Standing Water in Well (feet):	9.79
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	12.15	Sample Depth (feet BGS):	13
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	4 to 19	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 8
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 11:30 **Stop time:** 12:30

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
12:17	12.10	-91.1	7.13	0.5	0.45	15.3	4	200	
12:20	12.10	-94.3	7.11	0.49	0.49	15.3	4	200	
12:23	12.11	-95.7	7.10	0.49	0.46	15.3	4	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:30

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Moderate oil-like Clarity: None

Total Purge Volume: 2 gallons

Tubing Volume: 0.15 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

Sheen on purge water.

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-314D
Sample Date: 6/19/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-14:00

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	37	Standing Water in Well (feet):	25.17
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	11.83	Sample Depth (feet BGS):	29
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	24 to 34	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7 **Flow-Thru Cell Vol (mL):** 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 10:30 **Stop time:** 12:15

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:52	12.37	-89.1	7.1	6.56	0.53	14.6	4	250	
10:56	12.37	-89.8	7.1	6.11	0.49	14.7	4	250	
10:59	12.37	-92.6	7.1	5.41	0.47	14.7	4	250	
11:19	12.37	-91.2	7.12	4.62	0.41	14.9	4	250	
11:38	12.37	-78.5	6.99	1.98	0.45	15.2	4	250	
11:41	12.37	-76.8	6.96	1.80	0.41	15.2	4	250	
11:44	12.37	-75.2	6.94	1.68	0.40	15.1	4	250	
11:47	12.37	-72.6	6.92	1.55	0.37	15.2	4	250	
12:00	12.37	-70.6	6.90	1.23	0.32	15.1	4	250	
12:03	12.36	-71.8	6.88	1.17	0.33	15.1	4	250	
12:06	12.36	-73.9	6.88	1.16	0.34	15.1	4	250	
12:09	12.36	-75.1	6.88	1.18	0.33	15.1	4	250	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:15

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: Moderate oil-like Clarity: None

Total Purge Volume: 4 gallons **Tubing Volume:** 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
Collect BD#2

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-315D
Sample Date: 6/19/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-14:10

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet):	33.05	Standing Water in Well (feet):	21.92
Depth to LNAPL (feet):	-	Well Diameter (in.)	2
Depth to Water (feet):	11.13	Sample Depth (feet BGS):	25
Depth to DNAPL (feet):	-	Standpipe: TPVC to Ground Surface (feet)	-
Well Screened Interval (feet BGS):	20 to 30	Roadbox: TPVC to Ground Surface (feet)	-

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7

Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 10:45 **Stop time:** 12:00

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
11:06	11.72	-70.2	6.88	5.37	0.32	13.7	10	250	
11:10	11.66	-79.7	6.92	4.29	0.35	14	10	200	
11:13	11.66	-81.6	6.91	4.16	0.33	14.1	10	200	
11:50	11.70	-102.4	6.88	1.37	0.26	14.1	10	200	
11:53	11.70	-103.9	6.87	1.36	0.22	14.1	10	200	
11:56	11.71	-105	6.87	1.32	0.24	14.1	10	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:00

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: moderate oil-like Clarity: None

Total Purge Volume: 5 gallons

Tubing Volume: 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-318D
Sample Date: 6/20/2014
Sampler's Name: SDN

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/16/14-11:50

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 36.5
Depth to LNAPL (feet): -
Depth to Water (feet): 9.12
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 24 to 34

Standing Water in Well (feet): 27.38
Well Diameter (in.) 2
Sample Depth (feet BGS): 29
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 11:00 **Stop time:** 11:25

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
11:11	11.03	-28.4	7.12	2.81	0.39	14.9	30	250	
11:14	11.40	-32.4	7.13	2.82	0.30	14.8	6	250	
11:17	11.42	-35.3	7.13	2.80	0.27	16	5	100	
11:20	11.46	-38.3	7.12	2.81	0.28	16.1	5	100	
11:23	11.49	-43.1	7.14	2.82	0.28	15.9	5	100	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 11:25

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: Yellow Odor: Moderate oil-like Clarity: None

Total Purge Volume: 1 gallon

Tubing Volume: 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-319D
Sample Date: 6/19/2014
Sampler's Name: EMB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/19/2014-14:12

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 32.23
Depth to LNAPL (feet): -
Depth to Water (feet): 9.75
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 20 to 30

Standing Water in Well (feet): 22.48
Well Diameter (in.) 2
Sample Depth (feet BGS): 25
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 7
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 1

INSTRUMENT MEASUREMENTS:

Start time: 14:15 **Stop time:** 15:00

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
14:35	10.02	-73	6.62	1.00	0.44	16.6	17	200	
14:40	10.06	-75	6.65	0.99	0.45	17.1	12	200	
14:50	10.06	-77	6.64	1.00	0.37	17.0	9	200	
14:55	10.06	-78	6.65	1.00	0.36	17.0	8	200	
14:57	10.06	-78	6.65	0.99	0.36	17.1	8	200	
15:00	10.06	-78	6.64	1.00	0.36	17.1	9	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 15:00

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: Very slightly yellow Odor: None Clarity: None

Total Purge Volume: 3 gallons

Tubing Volume: 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 80's

Well ID: GZ-320D
Sample Date: 6/17/2014
Sampler's Name: MJB

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 6/17/2014-13:30

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]

Total Well Depth (feet): 33.20
Depth to LNAPL (feet): -
Depth to Water (feet): 12.07
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 20 to 30

Standing Water in Well (feet): 21.13
Well Diameter (in.) 2
Sample Depth (feet BGS): 25
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: Geotech Peristaltic No. 8
Flow-Thru Cell Vol (mL): 250

Meter Type: YSI/Lamotte No. 2

INSTRUMENT MEASUREMENTS:

Start time: 13:35 **Stop time:** 14:16

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µs/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (ºC) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
14:01	12.25	-5.7	7.47	1104	0.20	15.5	35	175	
14:06	12.26	-1.0	7.47	1106	0.13	15.6	38	175	
14:11	12.30	-2.2	7.47	1110	0.14	15.4	36	175	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 14:16

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCI	None

Sample observations:

Color: None Odor: None Clarity: None

Total Purge Volume: 4 gallons

Tubing Volume: 0.3 gallons

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 1 of 2
Project: 642 Allens Avenue | Date: 6/17/2014
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	1000
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4./7
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	100
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	991
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4.2/7.07
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	99
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	9.8

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 2 of 2
Project: 642 Allens Avenue | Date: 6/17/2014
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	1000
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.01/7.01
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	100
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	235	Reading:	234
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	991
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.01/7.03
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	99.7
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	235	Reading:	234.1
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	13

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 1 of 2
Project: 642 Allens Avenue | Date: 6/18/2014
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #1	Standard Solution:	1000	Reading:	1001
pH (s.u.):	Instrument and Number:	YSI #1	Standard Solution:	4/7	Reading:	4.01/7.08
DO (mg/L):	Instrument and Number:	YSI #1	Standard Solution:	100	Reading:	99.1
ORP (mvolts:)	Instrument and Number:	YSI #1	Standard Solution:	238	Reading:	237.1
Turbidity (NTU):	Instrument and Number:	Lamotte #1	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #1	Standard Solution:	1000	Reading:	872
pH (s.u.):	Instrument and Number:	YSI #1	Standard Solution:	4/7	Reading:	4.15/6.83
DO (mg/L):	Instrument and Number:	YSI #1	Standard Solution:	100	Reading:	90.1
ORP (mvolts:)	Instrument and Number:	YSI #1	Standard Solution:	238	Reading:	237
Turbidity (NTU):	Instrument and Number:	Lamotte #1	Standard Solution:	10	Reading:	8

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 2 of 2
Project: 642 Allens Avenue | Date: 6/18/2014
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	997
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.10/7.25
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	98
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	238	Reading:	239
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	992
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.50/7.51
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	103.4
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	238	Reading:	236.7
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	9

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 1 of 2
Project: 642 Allens Avenue | Date: 6/19/2014
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #1	Standard Solution:	1000	Reading:	991
pH (s.u.):	Instrument and Number:	YSI #1	Standard Solution:	4/7	Reading:	4.02/7.05
DO (mg/L):	Instrument and Number:	YSI #1	Standard Solution:	100	Reading:	99.1
ORP (mvolts:)	Instrument and Number:	YSI #1	Standard Solution:	238	Reading:	237.5
Turbidity (NTU):	Instrument and Number:	Lamotte #1	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #1	Standard Solution:	1000	Reading:	821
pH (s.u.):	Instrument and Number:	YSI #1	Standard Solution:	4/7	Reading:	3.81/8/22
DO (mg/L):	Instrument and Number:	YSI #1	Standard Solution:	100	Reading:	92
ORP (mvolts:)	Instrument and Number:	YSI #1	Standard Solution:	238	Reading:	236.1
Turbidity (NTU):	Instrument and Number:	Lamotte #1	Standard Solution:	10	Reading:	7

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 2 of 2
Project: 642 Allens Avenue | Date: 6/19/2014
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	1001
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.01/7.06
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	99.1
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	238	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	1210
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	3.8/7.42
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	113
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	238	Reading:	237
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	0/10	Reading:	16

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 1 of 2
Project: 642 Allens Avenue | Date: 6/20/2014
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #1	Standard Solution:	1000	Reading:	999
pH (s.u.):	Instrument and Number:	YSI #1	Standard Solution:	4/7	Reading:	4.1/7.01
DO (mg/L):	Instrument and Number:	YSI #1	Standard Solution:	100	Reading:	99.2
ORP (mvolts:)	Instrument and Number:	YSI #1	Standard Solution:	238	Reading:	237
Turbidity (NTU):	Instrument and Number:	Lamotte #1	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #1	Standard Solution:	1000	Reading:	880
pH (s.u.):	Instrument and Number:	YSI #1	Standard Solution:	4/7	Reading:	3.80/7.78
DO (mg/L):	Instrument and Number:	YSI #1	Standard Solution:	100	Reading:	88
ORP (mvolts:)	Instrument and Number:	YSI #1	Standard Solution:	238	Reading:	236
Turbidity (NTU):	Instrument and Number:	Lamotte #1	Standard Solution:	10	Reading:	16

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 2 of 2
Project: 642 Allens Avenue | Date: 6/20/2014
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	991
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4.01/7.11
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	99.6
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	887
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	3.80/6.56
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	89
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	237
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	10

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: RCA-1
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 15.61
Depth to LNAPL (feet): -
Depth to Water (feet): 6.72
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 4 to 14

Standing Water in Well (feet): 8.89
Well Diameter (in.) 2
Sample Depth (feet BGS): 9
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 2
Meter Type: YSI/Lamotte No. 3
Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 14:45 **Stop time:** 15:30

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
15:07	7.10	-95.2	7.05	610	1.1	15.7	<5	200	
15:10	7.10	-98.8	7.10	618	1.05	15.7	<5	200	
15:14	7.10	-102.1	7.13	615	0.97	15.6	<5	200	
15:17	7.10	-100.7	7.15	607	0.93	15.6	<5	200	
15:20	7.10	-102.2	7.16	598	0.88	15.5	<5	200	
15:24	7.10	-105.5	7.19	593	0.89	15.4	<5	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 15:30

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: none Clarity: clear

Total Purge Volume: 1 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: RCA-3
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 18
Depth to LNAPL (feet): -
Depth to Water (feet): 9.24
Depth to DNAPL (feet): trace
Well Screened Interval (feet BGS): 6 to 16

Standing Water in Well (feet): 8.76
Well Diameter (in.) 2
Sample Depth (feet BGS): 11
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 1
Meter Type: YSI/Lamotte No. 3

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 8:15 **Stop time:** 9:40

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
8:56	9.45	-70.5	6.76	0.503	14.5	14.5	<5	<500	
9:09	9.45	-94.1	6.78	0.511	6.5	14.5	<5	<500	
9:31	9.45	-96.6	6.78	0.499	5.2	14.5	<5	<500	
9:34	9.45	-95.5	6.78	0.498	5.3	14.5	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:40

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none fuel oil like Clarity: clear

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
slight plates of sheen observed in purge water

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: RCA-11
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 15.12
Depth to LNAPL (feet): -
Depth to Water (feet): 7.27
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 4 to 14

Standing Water in Well (feet): 7.85
Well Diameter (in.) 2
Sample Depth (feet BGS): 9
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 2
Meter Type: YSI/Lamotte No. 3

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 11:30 **Stop time:** 12:30

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
12:13	7.38	487.1	2.20	1661	2.68	16.8	<5	200	
12:16	7.38	488.8	2.20	1658	2.74	16.9	<5	200	
12:20	7.38	490.1	2.20	1656	2.78	16.9	<5	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:30

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: purifier box-like Clarity: clear

Total Purge Volume: 1 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
water blue at beginning but cleared up

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: RCA-12R
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 14.73
Depth to LNAPL (feet): -
Depth to Water (feet): 10.89
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 3.84
Well Diameter (in.) 2
Sample Depth (feet BGS): 12
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 1
Meter Type: YSI/Lamotte No. 2
Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 15:15 **Stop time:** 15:45

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
15:23	10.95	26.8	6.47	0.82	1.28	15.7	<5	<500	
15:27	10.95	21.5	6.46	0.81	0.76	16	<5	<500	
15:30	10.95	21	6.47	0.81	0.6	16	<5	<500	
15:33	10.95	20.3	6.41	0.81	0.5	16	<5	<500	
15:36	10.95	18.7	6.39	0.81	0.45	15.9	<5	<500	
15:39	10.95	15.9	6.40	0.81	0.38	15.9	<5	<500	
15:42	10.95	15.4	6.39	0.81	0.37	15.9	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 15:45

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: none Clarity: clear

Total Purge Volume: 1 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
sample not able to be collected at midpoint of screen due to lack of water

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: RCA-22
Sample Date: 10/16/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 13.29
Depth to LNAPL (feet): -
Depth to Water (feet): 10.08
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): unknown

Standing Water in Well (feet): 3.21
Well Diameter (in.) 2
Sample Depth (feet BGS): 9
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 2
Meter Type: YSI/Lamotte No. 3
Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 9:05 **Stop time:** 9:50

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:28	10.00	-124.8	7.38	817	0.52	15.5	<5	<500	
9:36	10.00	-131.7	7.39	814	0.51	15.5	<5	<500	
9:44	10.00	-134.9	7.38	820	0.51	15.5	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:50

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: slight fuel oil Clarity: clear

Total Purge Volume: 1 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
1 VOA broke

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: RCA-28
Sample Date: 10/16/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 17.7
Depth to LNAPL (feet): -
Depth to Water (feet): 12.22
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 5.48
Well Diameter (in.) 2
Sample Depth (feet BGS): 11
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 2
Meter Type: YSI/Lamotte No. 2
Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 12:30 **Stop time:** 13:05

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
12:37	12.51	-114.3	7.19	937	1.04	18.9	<5	<500	
12:42	12.51	-112.2	7.16	890	0.83	19.1	<5	<500	
12:50	12.51	-113.5	7.15	872	0.65	18.6	<5	<500	
12:55	12.51	-113.8	7.15	867	0.65	18.9	<5	<500	
12:59	12.51	-114	7.16	865	0.62	18.5	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 13:05

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none Odor: fuel oil like o Clarity: clear

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: RCA-36
Sample Date: 10/19/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 13.15
Depth to LNAPL (feet): -
Depth to Water (feet): 10
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 3.15
Well Diameter (in.) 2
Sample Depth (feet BGS): 10
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 1
Meter Type: YSI/Lamotte No. 3

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 11:10 **Stop time:** 12:50

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
11:15	11.56	36	6.49	6514	2.76	15.5	<5	<500	
11:28	11.46	41.2	6.54	8799	3.19	15.5	<5	<500	
11:35	11.20	46.6	6.58	9894	3.41	15.4	<5	<500	
11:46	44.00	48.8	6.58	10489	3.45	15.6	<5	<500	
11:53	10.90	46.9	6.55	11751	3.59	15.6	<5	<500	
12:26	10.8	52.7	6.60	13492	4.27	15.5	<5	<500	
12:38	10.52	57.9	6.60	14797	4.43	15.7	<5	<500	
12:41	10.52	59.4	6.60	15053	4.4	15.7	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:50

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: Odor: Clarity:

Total Purge Volume: 3 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: RCA-38
Sample Date: 10/16/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 16.71
Depth to LNAPL (feet): -
Depth to Water (feet): 8.82
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 4.5 to 14.5

Standing Water in Well (feet): 7.89
Well Diameter (in.) 2
Sample Depth (feet BGS): 10
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 2
Meter Type: YSI/Lamotte No. 3
Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 8:00 **Stop time:** 9:00

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
8:17	9.50	-77.9	7.04	242.4	2.11	15.5	<5	<500	
8:32	9.50	-80.7	6.94	230.4	1.25	15.6	<5	<500	
8:43	9.50	-85.7	6.94	237.5	1.05	15.9	<5	<500	
8:47	9.61	-86.9	6.94	237.4	1	15.9	<5	<500	
8:50	9.61	-87.9	6.94	237.4	0.96	15.9	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:00

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: none Clarity: clear

Total Purge Volume: 3 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: VHB-1
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 11.64
Depth to LNAPL (feet): -
Depth to Water (feet): 5.13
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 2 to 12

Standing Water in Well (feet): 6.51
Well Diameter (in.) 2
Sample Depth (feet BGS): 7
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 3
Meter Type: YSI/Lamotte No. 2

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 14:00 **Stop time:** 14:25

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
14:10	5.10	-111.1	7.07	2258	0.24	19.4	4	<500	
14:14	5.10	-115.7	7.13	2291	0.2	19.1	4	<500	
14:19	5.10	-116.8	7.13	2325	0.17	19	4	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 14:25

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: none Clarity: clear

Total Purge Volume: 1 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: VHB-3
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 10.44
Depth to LNAPL (feet): -
Depth to Water (feet): 6.27
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 2 to 12

Standing Water in Well (feet): 4.17
Well Diameter (in.) 2
Sample Depth (feet BGS): 9
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 2
Meter Type: YSI/Lamotte No. 2
Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 9:30 **Stop time:** 10:40

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:17	6.36	27.9	6.71	432.4	1.01	13.5	4	<500	
10:20	6.36	23.8	6.74	433.9	0.42	13.5	4	<500	
10:23	6.36	23.4	6.74	733.8	0.83	13.5	4	<500	
10:26	6.36	23.2	6.75	431.6	0.75	13.5	4	<500	
10:29	6.36	23.7	6.75	428.8	0.76	13.5	4	<500	
10:34	6.36	24.7	6.75	424.9	0.73	13.5	4	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 10:40

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: none Clarity: clear

Total Purge Volume: 3 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
not enough water to collect sample at midpoint

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: VHB-6
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 12.2
Depth to LNAPL (feet): -
Depth to Water (feet): 9.31
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 2 to 12

Standing Water in Well (feet): 2.89
Well Diameter (in.) 2
Sample Depth (feet BGS): 10
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 4
Meter Type: YSI/Lamotte No. 3

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 9:10 **Stop time:** 10:25

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:51	9.42	-93.2	6.93	0.319	1.65	14.3	<5	<500	
9:55	9.42	-97.5	7.00	0.323	1.32	14.2	<5	<500	
9:58	9.45	-98.3	7.03	0.315	1.09	15.1	<5	<500	
10:02	9.45	-97.3	7.01	0.311	1	15.2	<5	<500	
10:03	9.59	-99.4	7.02	0.291	0.94	15.4	<5	<500	
10:16	9.59	-99.4	7.01	0.294	0.66	15.4	<5	<500	
10:19	9.61	-99	7.00	0.294	0.67	15.4	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 10:25

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: none Clarity: clear

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

collected blind duplicate BD101515
Very silty at the bottom of the well
could not sample well at midpoint of screen due to lack of water

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: VHB-7
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 15.3
Depth to LNAPL (feet): -
Depth to Water (feet): 9.54
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 2 to 12

Standing Water in Well (feet): 5.76
Well Diameter (in.) 2
Sample Depth (feet BGS): 7
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 3
Meter Type: YSI/Lamotte No. 2

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 8:55 **Stop time:** 10:00

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
9:46	9.78	-51.9	6.51	302.6	0.43	13.1	<5	<500	
9:50	9.78	-56.7	6.51	306.1	0.33	13.1	<5	<500	
9:54	9.78	-59.2	6.52	304.8	0.29	13.2	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 10:00

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: fuel oil Clarity: clear

Total Purge Volume: 4 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: VHB-8R
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 14.15
Depth to LNAPL (feet): -
Depth to Water (feet): 8
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 2 to 12

Standing Water in Well (feet): 6.15
Well Diameter (in.) 2
Sample Depth (feet BGS): 7
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 3
Meter Type: YSI/Lamotte No. 2
Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 11:35 **Stop time:** 12:10

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
11:53	7.82	147.3	5.45	0.79	2.25	14.3	<5	<500	
11:56	7.82	144.8	5.54	0.79	0.49	14.3	<5	<500	
12:01	7.82	144.1	5.56	0.8	0.35	14.3	<5	<500	
12:05	7.82	143.7	5.58	0.8	0.32	14.3	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:10

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none odor: none Clarity: clear

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: VHB-10
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 18.15
Depth to LNAPL (feet): trace
Depth to Water (feet): 13.14
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 5.01
Well Diameter (in.) 2
Sample Depth (feet BGS): 11
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 4
Meter Type: YSI/Lamotte No. 2

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 11:50 **Stop time:** 12:40

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
12:19	12.94	6.9	6.53	0.402	0.73	16.3	<5	<500	
12:23	12.94	-30.9	6.51	0.399	0.57	16.5	<5	<500	
12:27	12.94	-40.8	6.57	0.4	0.42	16.5	<5	<500	
12:31	12.94	-41.8	6.58	0.399	0.42	16.6	<5	<500	
12:34	12.94	-45.3	6.58	0.401	0.39	16.5	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:40

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none fuel oil like Clarity: clear

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
sheen and fuel oil odors in purge water. Replaced tubing

GROUNDWATER SAMPLING DATA SHEET

File No. 33554
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: sunny 60s

Well ID: VHB-13
Sample Date: 10/19/2015
Sampler's Name: Sara Haupt and Sophia N.

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [ ] Steel Casing [ ] Ground [x]
Total Well Depth (feet): 15.87
Depth to LNAPL (feet): --
Depth to Water (feet): 10.49
Depth to DNAPL (feet): --
Well Screened Interval (feet BGS): 7 to 17

Standing Water in Well (feet): 5.38
Well Diameter (in.): 2
Sample Depth (feet BGS): 13
Standpipe: TPVC to Ground Surface (feet) --
Roadbox: TPVC to Ground Surface (feet) --

Well Condition: **Protective Casing-** [ ] Poor [x] Good **Lock-** [x] Yes [ ] No **Expansion Cap-** [x] Yes [ ] No **Well ID-** [x] Yes [ ] No **Concrete Collar-** [x] Yes [ ] No **Well-** [ ] Poor [x] Good

EQUIPMENT

Sample Method: [ ] Bail [ ] Pump / [x] Low Flow

Pump Type: geopump No. 1
Meter Type: YSI No. 3
Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 1:10 **Stop time:** 1:50

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
1:15	10.68	8.4	7.6	484.3	0.61	13.5	<5	<500	
1:18	10.68	14.3	7.62	410.9	0.59	13.5	<5	<500	
1:21	10.68	16.2	7.58	369.2	0.65	13.5	<5	<500	
1:30	10.68	19.6	7.45	335.3	0.67	13.5	<5	<500	
1:33	10.68	19.9	7.45	332.4	0.68	13.5	<5	<500	
1:36	10.68	20.1	7.45	325.7	0.67	13.5	<5	<500	
1:39	10.68	20.2	7.44	323.7	0.67	13.5	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 1:45

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling

Sample observations:

Color: Odor: Clarity:

Total Purge Volume: 0.5 gallon **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: VHB-21
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 18.62
Depth to LNAPL (feet): trace
Depth to Water (feet): 10.07
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 6 to 16

Standing Water in Well (feet): 8.55
Well Diameter (in.) 2
Sample Depth (feet BGS): 11
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 2
Meter Type: YSI/Lamotte No. 2

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 8:35 **Stop time:** 9:20

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
8:46	10.27	-74.7	6.47	0.62	5	15.3	<5	<500	
9:03	10.27	-85.7	6.63	0.62	3.1	15.4	<5	<500	
9:15	10.27	-86.6	6.67	0.61	3	15.5	<5	<500	
9:18	10.27	-86.9	6.68	0.61	2.9	15.5	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 9:20

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none fuel oil like Clarity: clear

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
sheen and fuel oil odors in purge water. Replaced tubing

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: GZ-301D
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 29.64
Depth to LNAPL (feet): -
Depth to Water (feet): 10.84
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 20 to 30

Standing Water in Well (feet): 18.8
Well Diameter (in.) 2
Sample Depth (feet BGS): 25
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 1
Meter Type: YSI/Lamotte No. 2

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 15:20 **Stop time:** 16:10

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
15:48	10.65	43.4	6.48	1.67	0.78	17.6	<5	<500	
15:51	10.65	50.3	6.43	1.67	0.52	17.5	<5	<500	
15:54	10.65	54.9	6.42	1.67	0.43	17.5	<5	<500	
15:57	10.65	57.1	6.41	1.66	0.41	17.3	<5	<500	
16:00	10.65	59.8	6.40	1.66	0.37	17.4	<5	<500	
16:03	10.65	30.8	6.40	1.65	0.37	17.3	<5	<500	
16:06	10.65	61.7	6.40	1.65	0.37	17.4	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 16:10

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none none Clarity: clear

Total Purge Volume: 1 gallons **Tubing Volume:** 0.3 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: GZ-304D
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 29.6
Depth to LNAPL (feet): -
Depth to Water (feet): 6.45
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 20 to 30

Standing Water in Well (feet): 23.15
Well Diameter (in.) 2
Sample Depth (feet BGS): 25
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 3
Meter Type: YSI/Lamotte No. 3

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 14:50 **Stop time:** 16:10

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
15:31	8.10	-114.8	7.54	2605	0.49	13.7	4	200	
15:35	8.10	-116	7.54	2145	0.4	13.6	4	200	
15:38	8.10	-117.5	7.52	1812	0.36	13.7	4	200	
15:41	8.10	-119	7.50	1660	0.36	13.8	4	200	
15:44	8.10	-120.9	7.49	1554	0.43	13.8	4	200	
15:54	8.10	-124.8	7.44	1357	0.43	13.8	4	200	
15:57	8.10	-125.4	7.44	1342	0.42	13.8	4	200	
16:00	8.10	-126	7.43	1331	0.43	13.8	4	200	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 16:10

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none none Clarity: clear

Total Purge Volume: 3 gallons

Tubing Volume: 0.3 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: GZ-309D
Sample Date: 10/15/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 30
Depth to LNAPL (feet): -
Depth to Water (feet): 4.58
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 4 to 19

Standing Water in Well (feet): 25.42
Well Diameter (in.) 2
Sample Depth (feet BGS): 25
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 2
Meter Type: YSI/Lamotte No. 3
Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 14:05 **Stop time:** 14:30

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
14:13	6.56	+125.1	7.73	2.82	0.34	16.5	<5	<500	
14:17	6.56	+148.3	7.75	2.62	0.27	16.4	<5	<500	
14:22	6.56	+153.4	7.74	2.53	0.24	16.4	<5	<500	
14:25	6.56	+156.4	7.74	2.43	0.26	16.3	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 14:30

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none none Clarity: clear

Total Purge Volume: 1 gallons **Tubing Volume:** 0.3 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: GZ-314S
Sample Date: 10/16/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 21.89
Depth to LNAPL (feet): -
Depth to Water (feet): 12.52
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 4 to 19

Standing Water in Well (feet): 9.37
Well Diameter (in.) 2
Sample Depth (feet BGS): 13
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 4
Meter Type: YSI/Lamotte No. 3

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 10:20 **Stop time:** 11:10

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:37	12.30	-103.2	7.21	368.5	0.57	14.3	<5	<500	
10:42	12.30	-110.6	7.21	367.7	0.43	14.3	<5	<500	
10:57	12.30	-127.9	7.28	363.5	0.42	14.9	<5	<500	
11:02	12.30	-130.8	7.27	361.5	0.43	14.9	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 11:10

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none none Clarity: clear

Total Purge Volume: 2 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:

GROUNDWATER SAMPLING DATA SHEET

File No. 33554.00 Task 23
Project: 642 Allens Avenue
Location: City: Providence State: RI
Weather: Sunny 60's

Well ID: GZ-314D
Sample Date: 10/16/2015
Sampler's Name: SDN & SJH

WATER LEVEL OBSERVATIONS

Measurement Date/Time: 10/14/2015

Point of Measurement: PVC Riser [X] Steel Casing [ ] Ground [ ]
Total Well Depth (feet): 37
Depth to LNAPL (feet): -
Depth to Water (feet): 12.47
Depth to DNAPL (feet): -
Well Screened Interval (feet BGS): 5 to 15

Standing Water in Well (feet): 24.53
Well Diameter (in.) 2
Sample Depth (feet BGS): 29
Standpipe: TPVC to Ground Surface (feet) -
Roadbox: TPVC to Ground Surface (feet) -

Well Condition: **Protective Casing-** [ ] Poor [X] Good **Lock-** [X] Yes [ ] No **Expansion Cap-** [X] Yes [ ] No **Well ID-** [X] Yes [ ] No **Concrete Collar-** [X] Yes [ ] No **Well-** [ ] Poor [X] Good

EQUIPMENT

Sample Method: [ ] Bail [X] Pump / [X] Low Flow

Pump Type: geopump No. 3
Meter Type: YSI/Lamotte No. 2

Flow-Thru Cell Vol (mL): 250

INSTRUMENT MEASUREMENTS:

Start time: 10:20 **Stop time:** 12:00

		1	2	3	4	5	6	7	8
Time: (start)	Depth to Water (ft) (drawdown <0.3 or stable)	ORP (mvolts) (± 10)	pH (s.u.) (± 0.1)	Spec. Cond. (mS/cm) (±3%)	DO (mg/L) (±10% or 3 rdgs <0.5)	Temperature (°C) (±3%)	Turbidity (ntu) (±10% or <5ntu)	Flow (ml/min) (<500 ml/min)	Notes
10:33	13.20	-99.1	7.3	14608	0.44	14.4	<5	<500	
10:40	13.20	-113.6	7.40	14165	0.34	14.3	<5	<500	
10:47	13.20	-122.9	7.47	12288	0.28	14.2	<5	<500	
10:53	13.20	-128.9	7.50	10863	0.23	14.2	<5	<500	
11:13	13.20	-112.9	7.44	4581	0.26	15.2	<5	<500	
11:43	13.2	-106.2	7.29	3206	0.23	15.3	<5	<500	
11:48	13.2	-106	7.28	3086	0.22	15.3	<5	<500	
11:52	13.2	-106.2	7.28	2974	0.22	15.3	<5	<500	

SAMPLE TESTING INFORMATION:

SAMPLE TIME: 12:00

Analysis	Method	No. Bottles	Bottle Type	Volume	Preservation	Handling
VOCS	8260B	3	VOA	40	HCl	None

Sample observations:

Color: none none Clarity: clear

Total Purge Volume: 4 gallons **Tubing Volume:** 0.1 gallon

2" WELL = 0.163 GAL /FT = 0.617 LITERS/FT
1" WELL = 0.013 GAL /FT = 0.0492 LITERS/FT
3/8" TUBING - 0.0057 GAL/FT - 0.0217 LITERS/FT
1/4" TUBING - 0.0025 GAL/FT - 0.0096 LITERS/FT

Notes:
collected BD101615

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 1 of 2
Project: 642 Allens Avenue | Date: 10/15/2015
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	1000
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4./7
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	100
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	982
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4.2/7.07
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	97
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	9.8

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 Page: 2 of 2
Project: 642 Allens Avenue Date: 10/15/2015
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	1000
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.01/7.01
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	100
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	235	Reading:	236
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	990
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.1/7.33
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	99.1
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	235	Reading:	234.1
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	19

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 1 of 2
Project: 642 Allens Avenue | Date: 10/16/2015
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	1010
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4.01/7.07
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	99.7
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	237.5
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	901
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4.15/7.43
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	88.3
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	235
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	17

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 2 of 2
Project: 642 Allens Avenue | Date: 10/16/2015
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	999
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.10/7.12
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	102
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	238	Reading:	239
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	996
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.30/7.11
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	103.7
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	238	Reading:	236.1
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	19

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 1 of 1
Project: 642 Allens Avenue | Date: 10/19/2015
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	998
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4.0/7.1
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	99.4
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	237.8
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	888
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	3.7/7.22
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	103
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	238	Reading:	240.1
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	11

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: VHB-1

Project 642 Allens Avenue | Sample Date: 5/20/2016

Location city: Providence State: RI | Sampler's name: SJH and SN

Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/18/2016 16:15

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	11.32	Standing water in well (feet)	6.82
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	4.5	Sample Depth (feet bgs)	9
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	2 to 12	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 8:00 Stop time: 8:40

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
8:13	4.45	-139.4	7.34	3429	0.38	14.2	4	150	
8:16	4.45	-137.9	7.33	3252	0.35	14.2	4	150	
8:19	4.45	-130.5	7.28	2791	0.32	14.15	4	150	
8:21	4.45	-128.3	7.26	2710	0.3	14.15	4	150	
8:28	4.45	-126.2	7.24	2639	0.27	14.15	4	150	
8:31	4.45	-126.3	7.24	2645	0.26	14.15	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 8:35

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: grey Odor: petroluem like Clarity: clear

Purge Volume: 2 gallons

Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No.	33554.00	Well ID:	VHB-3
Project	642 Allens Avenue	Sample Date:	5/20/2016
Location	city: Providence State: RI	Sampler's name:	SJH and SN
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/20/2016 8:55

Point of measurement	PVC Riser [x] Casing [ ] Ground [ ]		
Total well depth (feet)	10.15	Standing water in well (feet)	4.15
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	6	Sample Depth (feet bgs)	8
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	1 to 11	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 8:55 Stop time: 9:40

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
8:55	6	-34.7	6.7	331	2.71	13.95	4	150	
8:58	6	-30.6	6.69	332	2.6	13.48	4	150	
9:01	6	-22.8	6.67	328	2.38	12.58	4	150	
9:04	6	-15.4	6.64	325	2.05	12.64	4	150	
9:07	6	-10	6.65	321	1.64	12.63	4	150	
9:10	6	-5.9	6.65	326	1.39	12.49	4	150	
9:13	6	-3.2	6.65	325	1.19	12.65	4	150	
9:16	6	-0.1	6.64	326	1.01	13.07	4	150	
9:19	6	4.2	6.63	327	0.74	12.45	4	150	
9:22	6	8.5	6.65	329	0.59	12.54	4	150	
9:25	6	10.7	6.65	326	0.5	12.63	4	150	
9:28	6	14.7	6.63	325	0.44	12.62	4	150	
9:31	6	17.6	6.62	325	0.42	12.74	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 9:31

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 2 gallons

Tubing Volume: 0.1 gallons

Notes: collected blind duplicate BD052016

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: VHB-6
Project 642 Allens Avenue | Sample Date: 5/20/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/20/2016 9:40

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	11.12	Standing water in well (feet)	3.12
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	8	Sample Depth (feet bgs)	9
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	2 to 12	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 9:40 Stop time: 10:00

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
9:40	8.05	-48.8	6.39	331	2.49	12.96	4	150	
9:43	8.05	-49.8	6.4	330	2.29	12.93	4	150	
9:46	8.05	-48.7	6.4	329	2.17	12.89	4	150	
9:49	8.05	-47.7	6.4	327	1.95	12.87	4	150	
9:52	8.05	-49.3	6.4	328	1.77	12.84	4	150	
9:55	8.05	-46.9	6.4	328	1.69	12.85	4	150	
9:58	8.05	-46.9	6.4	328	1.6	12.85	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 10:00

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 2 gallons
Tubing Volume: 0.1 gallons

Notes: very silty in the beginning but cleared

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: VHB-7
Project 642 Allens Avenue | Sample Date: 5/20/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/20/2016 9:40

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	15	Standing water in well (feet)	5.82
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	9.18	Sample Depth (feet bgs)	12
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	5 to 15	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 10:39 Stop time: 11:06

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
10:39	9.18	-29	6.32	219	3.19	12.78	4	150	
10:42	9.18	-18.3	6	218	1.27	12.72	4	150	
10:45	9.18	-23.9	6.02	220	0.85	12.64	4	150	
10:48	9.18	-22	6.04	220	1.47	11.98	4	150	
10:51	9.18	-30.6	6.04	218	1.3	11.94	4	150	
10:54	9.18	-34	6.05	221	0.99	11.99	4	150	
10:57	9.18	-35.3	6.05	221	0.91	11.95	4	150	
11:00	9.18	-37.2	6.06	223	0.82	11.86	4	150	
11:03	9.18	-38.3	6.07	225	0.8	11.93	4	150	
11:06	9.18	-39.8	6.07	225	0.75	12.03	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 11:00

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 2 gallons
Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: VHB-8R
Project 642 Allens Avenue | Sample Date: 5/20/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/20/2016 12:00

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	13.7	Standing water in well (feet)	6.48
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	7.22	Sample Depth (feet bgs)	10
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	4 to 14	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 12:00 Stop time: 12:20

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
12:00	7.22	292.4	6.16	850	3.46	11.01	4	150	
12:03	7.22	291.3	6.17	854	3.16	10.96	4	150	
12:06	7.22	290.9	6.13	853	3.17	10.98	4	150	
12:09	7.22	288.7	6.16	854	3.02	10.95	4	150	
12:12	7.22	288.2	6.18	853	3.05	10.84	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 12:15

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 2 gallons
Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: VHB-10
Project 642 Allens Avenue | Sample Date: 5/20/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/20/2016 12:45

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	17.95	Standing water in well (feet)	5.63
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	12.32	Sample Depth (feet bgs)	14
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	8 to 18	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 12:19 Stop time: 12:49

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
12:22	12.32	103.1	5.58	1213	1.41	14.18	4	150	
12:25	12.32	82.7	5.79	1212	0.57	14.42	4	150	
12:28	12.32	75.2	5.88	1204	0.45	14.14	4	150	
12:31	12.32	53	6.08	1159	0.28	14.22	4	150	
12:34	12.32	41.1	6.18	1128	0.26	14.44	4	150	
12:37	12.32	29.8	6.26	1105	0.25	14.37	4	150	
12:40	12.32	20.4	6.27	1100	0.2	14.2	4	150	
12:43	12.32	14.1	6.51	1068	0.18	14	4	150	
12:46	12.32	11.6	6.55	1058	0.16	14.1	4	150	
12:49	12.32	9.8	6.58	1057	0.17	13.95	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 12:49

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 2 gallons
Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No.	33554.00	Well ID:	VHB-13
Project	642 Allens Avenue	Sample Date:	5/19/2016
Location	city: Providence State: RI	Sampler's name:	SJH and SN
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/19/2016 9:30

Point of measurement	PVC Riser [x] Casing [ ] Ground [ ]		
Total well depth (feet)	15.85	Standing water in well (feet)	5.27
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	10.58	Sample Depth (feet bgs)	13
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	6 to 16	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 9:40 Stop time: 10:15

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
9:40	10.65	196.2	7.02	424	1.01	12.28	4	150	
9:44	10.65	213.3	6.49	423	0.97	12.3	4	150	
9:47	10.65	187.4	6.73	423	0.85	12.34	4	150	
9:50	10.65	174.3	6.82	422	0.8	12.29	4	150	
9:53	10.65	165.6	6.86	422	0.73	12.31	4	150	
9:56	10.65	157.4	6.88	421	0.71	12.4	4	150	
9:59	10.65	150.6	6.9	421	0.67	12.49	4	150	
10:02	10.65	140	6.92	421	0.67	12.64	4	150	
10:05	10.65	136.2	6.91	420	0.64	12.36	4	150	
10:08	10.65	132.7	6.9	417	0.62	12.42	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 10:15

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 2 gallons

Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No.	33554.00	Well ID:	VHB-21
Project	642 Allens Avenue	Sample Date:	5/20/2016
Location	city: Providence State: RI	Sampler's name:	SJH and SN
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/20/2016 10:00

Point of measurement	PVC Riser [x] Casing [ ] Ground [ ]		
Total well depth (feet)	18.14	Standing water in well (feet)	9.35
Depth to LNAPL (feet)	8.78	Well Diamter (in.)	2
Depth to water (feet)	8.79	Sample Depth (feet bgs)	14
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	9 to 19	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 10:08 Stop time: 10:29

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
10:08	8.79	-90.5	6.46	616	1.35	11.71	4	150	
10:11	8.79	-91.5	6.45	616	1.18	11.78	4	150	
10:14	8.79	-98.8	6.52	616	0.91	11.83	4	150	
10:17	8.79	-102.3	6.56	618	0.79	11.68	4	150	
10:20	8.79	-104.2	6.57	618	0.65	11.69	4	150	
10:23	8.79	-104.8	6.58	619	0.6	11.78	4	150	
10:26	8.79	-105.7	6.59	619	0.52	11.82	4	150	
10:29	8.79	-105.7	6.59	620	0.5	11.78	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 10:35

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: fuel oil like Clarity: clear **Purge Volume:** 2 gallons

Tubing Volume: 0.1 gallons

Notes: Sheen, slight fuel oil like odors in purge water

Groundwater Sampling Data Sheet

File No.	33554.00	Well ID:	RCA-1
Project	642 Allens Avenue	Sample Date:	5/20/2016
Location	city: Providence State: RI	Sampler's name:	SJH and SN
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/18/2016 15:45

Point of measurement	PVC Riser [x] Casing [ ] Ground [ ]		
Total well depth (feet)	15.4	Standing water in well (feet)	9.3
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	6.1	Sample Depth (feet bgs)	10
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	6 to 16	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 9:30 Stop time: 10:05

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
9:40	6.05	-107.6	7.01	675	1.66	14.41	4	150	
9:43	6.05	-106	7	674	1.5	14.39	4	150	
9:46	6.05	-104.7	7.01	674	1.42	14.42	4	150	
9:49	6.05	-104.7	7.03	674	1.41	14.44	4	150	
9:52	6.05	-104.6	7.03	674	1.39	14.39	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 10:00

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 1.5 gallons

Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: RCA-3
Project 642 Allens Avenue | Sample Date: 5/20/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/18/2016 15:45

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	17.9	Standing water in well (feet)	8.42
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	9.48	Sample Depth (feet bgs)	14
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	8 to 18	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 7:55 Stop time: 8:55

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
7:58	9.48	-52.2	6.15	349	2.93	11.81	4	150	
8:01	9.48	-52.4	6.11	349	2.78	11.82	4	150	
8:04	9.48	-56.7	6.07	347	2.61	11.71	4	150	
8:07	9.48	-60.2	6.05	347	2.34	11.69	4	150	
8:10	9.48	-67.9	6.05	348	1.94	11.75	4	150	
8:13	9.48	-67.9	6.05	347	1.75	11.77	4	150	
8:16	9.48	-70.5	6.05	347	1.48	11.75	4	150	
8:19	9.48	-74	6.05	347	1.27	11.7	4	150	
8:22	9.48	-76.5	6.04	346	1.02	11.76	4	150	
8:25	9.48	-78.4	6.04	347	0.88	11.71	4	150	
8:28	9.48	-80.6	6.04	347	0.75	11.73	4	150	
8:31	9.48	-82.3	6.03	347	0.68	11.71	4	150	
8:34	9.48	-84.7	6.03	348	1.06	11.73	4	150	
8:37	9.48	-86.8	6.03	348	0.89	11.69	4	150	
8:40	9.48	-88.5	6.02	348	0.82	11.7	4	150	
8:43	9.48	-90.9	6.02	348	0.73	11.68	4	150	
8:46	9.48	-92.2	6.03	347	0.65	11.72	4	150	
8:49	9.48	-93.4	6.02	347	0.73	11.7	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 8:50

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear

Purge Volume: 1.5 gallons
Tubing Volume: 0.1 gallons

Groundwater Sampling Data Sheet

File No.	33554.00	Well ID:	RCA-11
Project	642 Allens Avenue	Sample Date:	5/20/2016
Location	city: Providence State: RI	Sampler's name:	SJH and SN
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/20/2016 11:00

Point of measurement	PVC Riser [x] Casing [ ] Ground [ ]		
Total well depth (feet)	14.93	Standing water in well (feet)	8
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	6.93	Sample Depth (feet bgs)	10
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	5 to 15	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 11:15 Stop time: 11:50

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
11:15	6.93	539.1	2.7	806	7.15	12.26	4	150	
11:18	6.93	545.2	2.69	813	6.82	12.31	4	150	
11:21	6.93	546.1	2.68	813	6.73	12.24	4	150	
11:24	6.93	543.6	2.69	814	6.39	12.23	4	150	
11:27	6.93	543.1	2.69	812	7.32	12.2	4	150	
11:30	6.93	545.4	2.69	811	8.27	12.2	4	150	
11:33	6.93	548.8	2.69	803	6.2	12.52	4	150	
11:36	6.93	527.9	2.72	813	6.54	12.67	4	150	
11:39	6.93	544.3	2.68	823	7.12	12.35	4	150	
11:42	6.93	543.2	2.68	833	7.16	12.32	4	150	
11:45	6.93	543.6	2.67	834	7.09	12.32	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 11:45

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 1.5 gallons

Tubing Volume: 0.1 gallons

Notes: oily silts present on probe

Groundwater Sampling Data Sheet

File No.	33554.00	Well ID:	RCA-12R
Project	642 Allens Avenue	Sample Date:	5/20/2016
Location	city: Providence State: RI	Sampler's name:	SJH and SN
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/18/2016 15:25

Point of measurement	PVC Riser [x] Casing [ ] Ground [ ]		
Total well depth (feet)	14.5	Standing water in well (feet)	4.32
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	10.18	Sample Depth (feet bgs)	12
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	5 to 15	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 10:30 Stop time: 11:40

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
11:15	10.25	71.5	6.14	3127	0.44	14.79	4	150	
11:18	10.25	72.8	6.17	3175	0.42	14.81	4	150	
11:21	10.25	75.7	6.15	3237	0.39	14.78	4	150	
11:24	10.25	76.9	6.15	3257	0.35	14.68	4	150	
11:27	10.25	77.7	6.14	3260	0.33	14.77	4	150	
11:30	10.25	78.2	6.14	3262	0.33	14.68	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 11:35

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 2 gallons

Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No.	33554.00	Well ID:	RCA-22
Project	642 Allens Avenue	Sample Date:	5/19/2016
Location	city: Providence State: RI	Sampler's name:	SJH and SN
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/19/2016 12:30

Point of measurement	PVC Riser [x] Casing [ ] Ground [ ]		
Total well depth (feet)	12.9	Standing water in well (feet)	3.28
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	9.62	Sample Depth (feet bgs)	11
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	3 to 13	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 12:45 Stop time: 13:06

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
12:45	9.62	-145.6	6.95	716	5.17	13.25	4	150	
12:48	9.62	-116.2	6.53	739	2.06	12.97	4	150	
12:51	9.62	-83.8	6	715	1.28	13.02	4	150	
12:54	9.62	-89.6	6.13	704	0.76	13.08	4	150	
12:57	9.62	-97.8	6.31	706	0.57	13.04	4	150	
1:00	9.62	-100.6	6.41	706	0.54	12.96	4	150	
1:03	9.62	-102.7	6.49	706	0.52	12.89	4	150	
1:06	9.62	-105.9	6.52	698	0.48	12.94	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 13:06

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear **Purge Volume:** 1 gallons

Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: RCA-28
Project 642 Allens Avenue | Sample Date: 5/19/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/19/2016 8:00

Point of measurement	PVC Riser [x] Casing [ ] Ground [ ]		
Total well depth (feet)	17.65	Standing water in well (feet)	5.68
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	11.97	Sample Depth (feet bgs)	15
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	8 to 18	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 11:55 Stop time: 12:30

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
12:00	11.97	-135.3	7.1	1255	2.66	16.64	4	150	
12:10	11.97	-131.5	7.07	1132	2.14	16.23	4	150	
12:13	11.97	-128.5	7.05	1079	1.91	16.23	4	150	
12:16	11.97	-122.8	7.01	1076	1.95	16.11	4	150	
12:19	11.97	-122.8	7.01	1070	1.85	16.16	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 12:20

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: brown Odor: petroleum like Clarity: cloudy

Purge Volume: 1 gallons
Tubing Volume: 0.1 gallons

Notes: Purge water contained sheen

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: RCA-36

Project 642 Allens Avenue | Sample Date: 5/19/2016

Location city: Providence State: RI | Sampler's name: SJH and SN

Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/19/2016 10:25

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	12.92	Standing water in well (feet)	1.72
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	11.2	Sample Depth (feet bgs)	12
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	3 to 13	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI/Lamotte No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 10:20 Stop time: 11:15

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
10:25	11.2	90	6.44	20065	3.53	12.84	4	150	
10:28	11.2	77.6	6.26	21174	4.61	12.9	4	150	
10:31	11.2	74	6.26	21817	4.95	12.81	4	150	
10:34	11.2	64.2	6.26	22282	5.13	12.85	4	150	
10:37	11.2	48.8	6.26	22378	5.11	12.88	4	150	
10:40	11.2	31	6.26	22349	5.05	12.87	4	150	
10:43	11.2	19.2	6.26	22428	4.99	12.87	4	150	
10:46	11.2	11.2	6.26	22476	4.94	12.83	4	150	
10:49	11.2	4	6.27	22402	4.89	12.78	4	150	
10:52	11.2	-2.2	6.27	22336	4.83	12.81	4	150	
10:55	11.2	-5.9	6.26	22675	4.9	12.83	4	150	
10:58	11.2	-2	6.28	23543	5.3	12.83	4	150	
11:02	11.2	-1.9	6.33	24622	5.77	12.86	4	150	
11:05	11.2	5.5	6.33	25040	5.93	12.89	4	150	
11:09	11.2	9.3	6.33	24919	5.81	12.9	4	150	
11:12	11.2	0.4	6.32	24272	5.58	12.9	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 11:15

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: brown Odor: petroleum like Clarity: cloudy

Purge Volume: 1 gallons

Tubing Volume: 0.1 gallons

Notes: collected blind duplicate BD051916

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: RCA-38
Project 642 Allens Avenue | Sample Date: 5/19/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/19/2016 8:50

Point of measurement	PVC Riser [x] Casing [ ] Ground [ ]		
Total well depth (feet)	16.5	Standing water in well (feet)	7.55
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	8.95	Sample Depth (feet bgs)	10
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	6.5 to 16.5	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI/Lamotte No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 12:52 Stop time: 13:20

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
12:56	8.95	-93.1	6.81	351	1.05	15.35	4	150	
12:59	8.95	-89.3	6.78	351	1.01	15.13	4	150	
1:02	8.95	-87.3	6.76	351	0.98	15.04	4	150	
1:05	8.95	-89.1	6.77	353	0.95	14.92	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 1:15

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: orange Odor: NA Clarity: clear

Purge Volume: 0.5 gallons
Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: GZ-301D
Project 642 Allens Avenue | Sample Date: 5/20/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/19/2016 8:50

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	29.6	Standing water in well (feet)	19.38
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	10.22	Sample Depth (feet bgs)	25
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	20 to 30	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI/Lamotte No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 11:00 Stop time: 12:00

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
11:40	10.35	-56.7	6.56	1345	0.2	14.99	4	150	
11:43	10.35	-57.8	6.55	1341	0.18	15	4	150	
11:46	10.35	-59.6	6.56	1338	0.17	14.98	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 11:50

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear

Purge Volume: 2 gallons
Tubing Volume: 0.1 gallons

Notes:

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: GZ-304D
Project 642 Allens Avenue | Sample Date: 5/20/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/18/2016 15:48

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	29.8	Standing water in well (feet)	25.75
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	4.05	Sample Depth (feet bgs)	25
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	20 to 30	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI/Lamotte No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 8:05 Stop time: 8:55

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
8:38	4.05	-122	6.8	2581	0.17	13.28	4	150	
8:44	4.05	-123.5	6.81	2596	0.16	13.3	4	150	
8:47	4.05	-123.7	6.81	2608	0.16	13.3	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 8:50

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: petroleum like Clarity: clear

Purge Volume: 2 gallons
Tubing Volume: 0.1 gallons

Notes: sheen in purge water

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: GZ-314S
Project 642 Allens Avenue | Sample Date: 5/19/2016
Location city: Providence State: RI | Sampler's name: SJH and SN
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/18/2016 15:48

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	21.75	Standing water in well (feet)	9.77
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	11.98	Sample Depth (feet bgs)	16
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	12 to 22	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no
lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI/Lamotte No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 11:07 Stop time: 11:50

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
11:28	12.02	-72.9	6.95	619	0.48	12.9	4	150	
11:31	12.02	-81.5	6.98	620	0.44	14	4	150	
11:34	12.02	-83.2	6.98	620	0.43	13.98	4	150	
11:37	12.02	-87.2	6.98	619	0.45	13.7	4	150	
11:40	12.02	-90.8	6.99	621	0.44	13.5	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 11:45

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: petroleum like Clarity: clear

Purge Volume: 2 gallons
Tubing Volume: 0.1 gallons

Notes: sheen in purge water

Groundwater Sampling Data Sheet

File No. 33554.00 | Well ID: GZ-314D

Project 642 Allens Avenue | Sample Date: 5/19/2016

Location city: Providence State: RI | Sampler's name: SJH and SN

Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/19/2016 9:00

Point of measurement: PVC Riser [x] Casing [ ] Ground [ ]

Total well depth (feet)	36.85	Standing water in well (feet)	24.93
Depth to LNAPL (feet)	--	Well Diamter (in.)	2
Depth to water (feet)	11.92	Sample Depth (feet bgs)	32
Depth to DNAPL (feet)	--	Standpipe TPVC to Ground (feet)	--
Well Screen (feet bgs)	27 to 37	Roadbox TPVC to Ground (feet)	--

Well Condition: **Protective casing** [ ] poor [x] good **Expansion cap** [x] yes [ ] no **Well ID** [x] yes [ ] no

lock [x] yes [ ] no **Concrete Collar** [x] yes [ ] no **Well** [ ] poor [x] good

EQUIPMENT

Sample Method: [ ] Bailer [x] Pump / [x] Low Flow

Pump Type: geopump No.

Meter Type: YSI/Lamotte No. **Flow Thru Cell Vol (mL):** 250

INSTRUMENT MEASUREMENTS: Start time: 11:25 Stop time: 12:09

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
11:25	11.92	-159.6	6.92	19242	1.37	13.75	4	150	
11:28	11.92	-168.5	6.94	18947	1.57	13.57	4	150	
11:31	11.92	-184.8	6.95	18225	1.34	13.6	4	150	
11:34	11.92	-180.4	7	15171	0.99	12.75	4	150	
11:37	11.92	-179.9	7.1	13485	0.98	12.62	4	150	
11:40	11.92	-173.3	7.08	13062	1.02	12.56	4	150	
11:43	11.92	-174	7.08	11857	0.67	12.58	4	150	
11:46	11.92	-166.2	7.12	10400	0.95	12.53	4	150	
11:49	11.92	-167	7.06	8090	0.79	12.53	4	150	
11:52	11.92	-158.4	6.99	6338	1.25	12.45	4	150	
11:55	11.92	-155.5	6.91	5300	0.93	12.42	4	150	
11:58	11.92	-153.2	6.85	4529	0.9	12.49	4	150	
12:01	11.92	-153.2	6.81	3944	0.83	12.43	4	150	
12:04	11.92	-151.6	6.75	3581	0.78	12.48	4	150	
12:07	11.92	-150.4	6.75	3426	0.78	12.39	4	150	

SAMPLE TESTING INFORMATION **Sample time:** 12:09

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260B	3	V	40 mL	HCL	none

SAMPLE OBSERVATIONS

Color: NA Odor: NA Clarity: clear

Purge Volume: 4.8 gallons

Tubing Volume: 0.1 gallons

Notes:

LOW FLOW CALIBRATION SHEET

File No. 33554.00 Task 23 | Page: 1 of 2

Project: 642 Allens Avenue | Date: 5/19/2016

Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	1000
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4./7
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	100
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	237.5	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	970
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4.1/7.05
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	91
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	237.5	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	9.1

LOW FLOW CALIBRATION SHEET

File No.	33554.00 Task 23	Page:	2 of 2
Project:	642 Allens Avenue	Date:	5/19/2016
Location:	City: Providence State: RI		

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	1000
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.01/7.01
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	100
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	237.5	Reading:	236
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	956
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.05/7.60
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	99.6
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	237.5	Reading:	235
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	18

LOW FLOW CALIBRATION SHEET

File No.	33554.00 Task 23	Page:	1 of 2
Project:	642 Allens Avenue	Date:	5/20/2016
Location:	City: Providence State: RI		

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	1010
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4/7
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	99.7
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	237.5	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #3	Standard Solution:	1000	Reading:	925
pH (s.u.):	Instrument and Number:	YSI #3	Standard Solution:	4/7	Reading:	4.21/6.95
DO (mg/L):	Instrument and Number:	YSI #3	Standard Solution:	100	Reading:	91.5
ORP (mvolts:)	Instrument and Number:	YSI #3	Standard Solution:	237.5	Reading:	239
Turbidity (NTU):	Instrument and Number:	Lamotte #3	Standard Solution:	10	Reading:	18

LOW FLOW CALIBRATION SHEET

File No.	33554.00 Task 23	Page:	2 of 2
Project:	642 Allens Avenue	Date:	5/20/2016
Location:	City: Providence State: RI		

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	999
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4/7
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	100
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	237.5	Reading:	238
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	10

Bump Check:

Specific Conductance:	Instrument and Number:	YSI #2	Standard Solution:	1000	Reading:	1025
pH (s.u.):	Instrument and Number:	YSI #2	Standard Solution:	4/7	Reading:	4.32/7.12
DO (mg/L):	Instrument and Number:	YSI #2	Standard Solution:	100	Reading:	112
ORP (mvolts:)	Instrument and Number:	YSI #2	Standard Solution:	237.5	Reading:	239
Turbidity (NTU):	Instrument and Number:	Lamotte #2	Standard Solution:	10	Reading:	8

File No. 33554.00 | Well ID: RCA-1
Project 642 Allens Ave | Sample Date: 5/31/2017
Location city: Providence State: RI | Sampler's name: SJH & CL
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 11:42

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	15.42	Standing water in well (feet)	9.95
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	5.47	Sample Depth (feet bgs)	9
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	4 to 14	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [X] yes [ ] no **Well ID** [X] yes [ ] no
lock [X] yes [ ] no **Concrete Collar** [ ] yes [X] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 2

Meter Type: YSI No. 2 **Flow Thru Cell Vol (mL):** 300

INSTRUMENT MEASUREMENTS: Start time: 9:30 Stop time: 10:30

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
930	5.47	-	-	-	-	-	-	300	
1015	5.47	-75.3	6.7	511	0.68	11.4	<5	300	
1020	5.47	-75.8	6.7	511	0.68	11.4	<5	300	
1025	5.47	-75.8	6.7	512	0.7	11.4	<5	300	

SAMPLE TESTING INFORMATION **Sample time:** 10:30

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40mL	HCL	on ice

SAMPLE OBSERVATIONS

Color N/A Odor None Clarity Clear

Purge Volume: 1 gallons
Tubing Volume: 0.10 gallons

Notes: NP=No Product

Groundwater Sampling Data Sheet

File No.	33554.00	Well ID:	RCA 12-R
Project	642 Allens Ave	Sample Date:	5/31/2017
Location	city: Providence State: RI	Sampler's name:	SJH & CL
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 12:00

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	14.43	Standing water in well (feet)	5.32
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	9.11	Sample Depth (feet bgs)	10
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	5 to 15	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [X] yes [ ] no **Well ID** [X] yes [ ] no

lock [X] yes [ ] no **Concrete Collar** [ ] yes [X] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 1

Meter Type: YSI No. 1 **Flow Thru Cell Vol (mL):** 300

INSTRUMENT MEASUREMENTS: Start time: 11:00 Stop time: 11:45

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
1110	9.11	-	-	-	-	-	-	300	
1130	9.11	-	6.6	1652	4.0	11.5	<5	300	
1135	9.11	-	6.6	1650	4.0	11.6	<5	300	
1140	9.11	-	6.6	1659	3.9	11.6	<5	300	

SAMPLE TESTING INFORMATION **Sample time:** 11:45

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40ml	HCL	On Ice

SAMPLE OBSERVATIONS

Color N/A Odor None Clarity Clear

Purge Volume: 1 gallons

Tubing Volume: 0.05 gallons

Notes: NP = No Product

File No. 33554.00 | Well ID: RCA-15
Project 642 Allens Ave | Sample Date: 5/31/2017
Location city: Providence State: RI | Sampler's name: SJH & CL
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 11:00

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	17.83	Standing water in well (feet)	10.25
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	7.58	Sample Depth (feet bgs)	13
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	8 to 18	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [X] yes [ ] no **Well ID** [X] yes [ ] no
lock [X] yes [ ] no **Concrete Collar** [ ] yes [X] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 2

Meter Type: YSI No. 2 **Flow Thru Cell Vol (mL):** 300

INSTRUMENT MEASUREMENTS: Start time: 13:10 Stop time: 14:40

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
1320	7.58	-	-	-	-	-	-	300	
1425	7.58	61	5.7	640	0.30	12.3	<5	300	
1430	7.58	61.0	5.6	643	0.28	12.3	<5	300	
1435	7.58	61.0	5.6	643	0.30	12.3	<5	300	

SAMPLE TESTING INFORMATION **Sample time:** 14:40

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40ml	HCL	On Ice

SAMPLE OBSERVATIONS

Color N/A Odor None Clarity Clear

Purge Volume: 1 gallons
Tubing Volume: 0.10 gallons

Notes: Added tubing, Rusty water to start, replaced lock.
NP = No Product

File No. 33554.00 | Well ID: RCA-22
Project 642 Allens Ave | Sample Date: 5/30/2017
Location city: Providence State: RI | Sampler's name: SJH & CL
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 9:50

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	13.02	Standing water in well (feet)	4.09
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	8.93	Sample Depth (feet bgs)	8
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	3 to 13	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [X] yes [ ] no **Well ID** [X] yes [ ] no
lock [X] yes [ ] no **Concrete Collar** [X] yes [ ] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 1

Meter Type: YSI No. 1 **Flow Thru Cell Vol (mL):** 125

INSTRUMENT MEASUREMENTS: Start time: 11:50 Stop time: 12:40

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
12:15	8.95	-29.4	6.30	483	0.49	11.08	4	200	
12:19	8.95	-35.7	6.05	486	0.44	11.08	4	200	
12:22	8.95	-51.5	6.15	494	0.48	11.08	4	200	
12:30	8.95	-91.3	6.61	494	0.39	11.36	4	200	
12:33	8.95	-95.0	6.66	505	0.36	11.34	4	200	
12:36	8.95	-97.6	6.68	503	0.34	11.34	4	200	

SAMPLE TESTING INFORMATION **Sample time:** 12:40

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40	HCL	ICE

SAMPLE OBSERVATIONS

Color N/A Odor N/A Clarity Clear

Purge Volume: 1.5 gallons
Tubing Volume: 0.04 gallons

Notes: NP = No Product

File No. 33554.00 | Well ID: RCA-34
Project 642 Allens Ave | Sample Date: 5/30/2017
Location city: Providence State: RI | Sampler's name: SJH & CL
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 10:00

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	12.93	Standing water in well (feet)	0.43
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	12.5	Sample Depth (feet bgs)	8
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	3 to 13	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [X] yes [ ] no **Well ID** [X] yes [ ] no
lock [X] yes [ ] no **Concrete Collar** [ ] yes [X] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 1

Meter Type: YSI No. 1 **Flow Thru Cell Vol (mL):** 300

INSTRUMENT MEASUREMENTS: Start time: 11:00 Stop time: N/A

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
1150	-	-	-	-	-	-	-	300	
NM	-	-	-	-	-	-	-	-	Dry
1445	-	-	-	-	-	-	-	-	DTW 12.9

SAMPLE TESTING INFORMATION **Sample time:** Not Sampled

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
N/A						

SAMPLE OBSERVATIONS

Color N/A Odor N/A Clarity N/A

Purge Volume: 0.5 gallons
Tubing Volume: 0.00 gallons

Notes: Well allowed to recovery, gauged at 1500 and water well was 12.9 feet- not sampled.
NP = No Product
NM = Not Measured

File No. 33554.00 | Well ID: RCA-36
Project 642 Allens Ave | Sample Date: 5/30/2017
Location city: Providence State: RI | Sampler's name: SJH & CL
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 9:40

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	13.10	Standing water in well (feet)	1.30
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	11.80	Sample Depth (feet bgs)	9
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	5 to 15	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [ ] yes [X] no **Well ID** [ ] yes [ ] no
lock [ ] yes [X] no **Concrete Collar** [ ] yes [ ] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 1

Meter Type: YSI No. 1 **Flow Thru Cell Vol (mL):** 300

INSTRUMENT MEASUREMENTS: Start time: 13:20 Stop time: 14:45

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
1330	11.80	-	-	-	-	-	-	300	
1430	11.80	103.0	6.39	14795	2.20	14.6	<5	300	
1435	11.80	100	6.39	14705	2.16	14.5	<5	300	
1440	11.80	100	6.39	14755	2.20	14.5	<5	300	

SAMPLE TESTING INFORMATION **Sample time:** 14:45

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40	HCL	ICE

SAMPLE OBSERVATIONS

Color N/A Odor None Clarity Clear

Purge Volume: 1 gallons
Tubing Volume: 0.01 gallons

Notes: NP = No Product

File No. 33554.00 | Well ID: VHB-20
Project 642 Allens Ave | Sample Date: 5/30/2017
Location city: Providence State: RI | Sampler's name: Sara Haupt
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 10:10

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	17.47	Standing water in well (feet)	9.37
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	8.1	Sample Depth (feet bgs)	10
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	5 to 15	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [X] yes [ ] no **Well ID** [X] yes [ ] no
lock [X] yes [ ] no **Concrete Collar** [X] yes [ ] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 1

Meter Type: YSI No. 1 **Flow Thru Cell Vol (mL):** 200

INSTRUMENT MEASUREMENTS: Start time: 12:50 Stop time: 14:00

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
13:37	8.2	110	6.17	330	0.31	12.41	4	200	
13:40	8.2	106.6	6.17	334	0.31	12.35	4	200	
13:43	8.2	106.8	6.15	338	0.31	12.91	4	200	

SAMPLE TESTING INFORMATION **Sample time:** 14:00

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40	HCL	ICE

SAMPLE OBSERVATIONS

Color N/A Odor N/A Clarity Clear

Purge Volume: 2 gallons
Tubing Volume: 0.10 gallons

Notes: NP = No Product

File No.	33554.00	Well ID:	GZA-201
Project	642 Allens Ave	Sample Date:	5/30/2017
Location	city: Providence State: RI	Sampler's name:	Charles Lindner
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 9:20

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	20.24	Standing water in well (feet)	10.74
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	9.50	Sample Depth (feet bgs)	16
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	2.05
Well Screen (feet bgs)	11 to 21	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [ ] yes [X] no **Well ID** [ ] yes [X] no

lock [X] yes [ ] no **Concrete Collar** [X] yes [ ] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 2

Meter Type: YSI No. 2 **Flow Thru Cell Vol (mL):** 300

INSTRUMENT MEASUREMENTS: Start time: 10:00 Stop time: 11:15

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
1015	9.50	-	-	-	-	-	-	300	
1100	9.50	-60	7.0	247	0.75	12.4	<5	300	
1105	9.50	-60	6.9	246	0.73	12.4	<5	300	
1110	9.50	-60	6.9	246	0.73	12.4	<5	300	

SAMPLE TESTING INFORMATION **Sample time:** 11:15

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	Vial	HCL	on ice

SAMPLE OBSERVATIONS

Color N/A Odor Slight Clarity Clear

Petroleum like

Purge Volume: 1 gallons

Tubing Volume: 0.11 gallons

Notes: Slight Sheen

NP = No Product

Groundwater Sampling Data Sheet

File No.	33554.00	Well ID:	GZ-301D
Project	642 Allens Ave	Sample Date:	5/31/2017
Location	city: Providence State: RI	Sampler's name:	SJH & CL
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 12:05

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	29.64	Standing water in well (feet)	20.43
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	9.21	Sample Depth (feet bgs)	25
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	20 to 30	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [X] yes [ ] no **Well ID** [X] yes [ ] no

lock [X] yes [ ] no **Concrete Collar** [X] yes [ ] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 1

Meter Type: YSI No. 1 **Flow Thru Cell Vol (mL):** 300

INSTRUMENT MEASUREMENTS: Start time: 10:50 Stop time: 11:30

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
1055	9.21	-	-	-	-	-	-	200	
1115	9.21	-64.1	6.6	1709	0.30	11.8	<5	300	
1120	9.21	-64.0	6.6	1710	0.27	11.8	<5	300	
1125	9.21	-64.0	6.6	1710	0.29	11.8	<5	300	

SAMPLE TESTING INFORMATION **Sample time:** 11:30

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40ml	HCL	on ice

SAMPLE OBSERVATIONS

Color N/A Odor None Clarity Clear

Purge Volume: 1 gallons

Tubing Volume: 0.21 gallons

Notes: NP=No Product

File No. 33554.00 | Well ID: GZ 304-D
Project 642 Allens Ave | Sample Date: 5/31/2017
Location city: Providence State: RI | Sampler's name: SJH & CL
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 11:55

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	29.5	Standing water in well (feet)	21.9
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	7.6	Sample Depth (feet bgs)	25
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	20 to 30	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [X] yes [ ] no **Well ID** [X] yes [ ] no
lock [X] yes [ ] no **Concrete Collar** [ ] yes [X] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 2

Meter Type: YSI No. 2 **Flow Thru Cell Vol (mL):** 300

INSTRUMENT MEASUREMENTS: Start time: 9:50 Stop time: 10:45

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
1000	7.6	-	-	-	-	-	-	300	
1035	7.6	-117	7.0	4532	0.30	12.1	<5	300	
1040	7.6	-118	7.0	4530	0.35	12.1	<5	300	
1045	7.6	-118	7.0	4520	0.36	12.1	<5	300	

SAMPLE TESTING INFORMATION **Sample time:** 10:45

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40ml	HCL	On Ice

SAMPLE OBSERVATIONS

Color N/A Odor None Clarity Clear

Purge Volume: 1 gallons
Tubing Volume: 0.22 gallons

Notes: NP = No Product

File No.	33554.00	Well ID:	GZ 309-D
Project	642 Allens Ave	Sample Date:	5/31/2017
Location	city: Providence State: RI	Sampler's name:	SJH & CL
Weather:	Sunny 60s		

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 11:30

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	NM	Standing water in well (feet)	NM
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2
Depth to water (feet)	3.64	Sample Depth (feet bgs)	25
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	20 to 30	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [X] yes [ ] no **Well ID** [X] yes [ ] no

lock [X] yes [ ] no **Concrete Collar** [ ] yes [X] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 2

Meter Type: YSI No. 2 **Flow Thru Cell Vol (mL):** 300

INSTRUMENT MEASUREMENTS: Start time: 12:10 Stop time: 13:00

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
1220	3.64	-	-	-	-	-	-	300	
1250	3.64	-53.6	6.5	1789	0.16	12.0	<5	300	
1255	3.64	-54.2	6.5	1786	0.15	13.0	<5	300	
1300	3.64	-54	6.6	1789	0.16	13.0	<5	300	

SAMPLE TESTING INFORMATION **Sample time:** 13:00

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40ml	HCL	on ice

SAMPLE OBSERVATIONS

Color N/A Odor None Clarity Clear

Purge Volume: 1 gallons

Tubing Volume: 0.08 gallons

Notes: NP = No Product

Well pinched, could not gauge depth to bottom. Was able to push tubing through.

NM - not measured

File No. 33554.00 | Well ID: GZ-319D
Project 642 Allens Ave | Sample Date: 5/30/2017
Location city: Providence State: RI | Sampler's name: Sara Haupt
Weather: Sunny 60s

WATER LEVEL OBSERVATIONS measurement date/time: 5/30/2017 10:20

Point of measurement: PVC Riser [X] Casing [ ] Ground [ ]

Total well depth (feet)	32.40	Standing water in well (feet)	23.15
Depth to LNAPL (feet)	NP	Well Diamter (in.)	2"
Depth to water (feet)	9.25	Sample Depth (feet bgs)	25
Depth to DNAPL (feet)	NP	Standpipe TPVC to Ground (feet)	-
Well Screen (feet bgs)	20 to 30	Roadbox TPVC to Ground (feet)	-

Well Condition: **Protective casing** [ ] poor [X] good **Expansion cap** [ ] yes [X] no **Well ID** [X] yes [ ] no
lock [ ] yes [X] no **Concrete Collar** [X] yes [ ] no **Well** [ ] poor [X] good

EQUIPMENT

Sample Method: [ ] Bailer [ ] Pump / [X] Low Flow

Pump Type: geopump No. 1

Meter Type: YSI No. 1 **Flow Thru Cell Vol (mL):** 125

INSTRUMENT MEASUREMENTS: Start time: 12:55 Stop time: 14:10

Time	Depth to water (ft) (drawdown <0.3 or stable)	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm) (±3%)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes
13:57	9.3	-52.6	6.56	642	0.38	12.63	4	200	
14:00	9.3	-56.9	6.55	641	0.36	12.50	4	200	
14:03	9.3	-58.0	6.55	639	0.38	12.51	4	200	

SAMPLE TESTING INFORMATION **Sample time:** 14:10

Analysis	Method	No. bottles	Bottle type	Volume	Preservation	Handling
VOC	8260	3	VOA	40	HCL	ICE

SAMPLE OBSERVATIONS

Color N/A Odor N/A Clarity Clear

Purge Volume: 3 gallons
Tubing Volume: 0.24 gallons

Notes: Collect BD053017 slight sheen in purge water
NP = No Product

LOW FLOW CALIBRATION SHEET

File No. 33554.01 | Page: 1 of 2
Project: 642 Allens Avenue | Date: 7/6/2018
Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI	Standard Solution:	1000	Reading:	982
pH (s.u.):	Instrument and Number:	YSI	Standard Solution:	4/7	Reading:	4.00/7.03
DO (mg/L):	Instrument and Number:	YSI	Standard Solution:	100%	Reading:	97.6
ORP (mvolts:)	Instrument and Number:	YSI	Standard Solution:	237.5	Reading:	241
Turbidity (NTU):	Instrument and Number:	Lamotte	Standard Solution:	0/1	Reading:	0 / 0.9

Bump Check:

Specific Conductance:	Instrument and Number:	YSI	Standard Solution:	1000	Reading:	1003
pH (s.u.):	Instrument and Number:	YSI	Standard Solution:	4/7	Reading:	4.1/6.9
DO (mg/L):	Instrument and Number:	YSI	Standard Solution:	100%	Reading:	103
ORP (mvolts:)	Instrument and Number:	YSI	Standard Solution:	237.5	Reading:	205.1
Turbidity (NTU):	Instrument and Number:	Lamotte	Standard Solution:	0/1	Reading:	0/1

LOW FLOW CALIBRATION SHEET

File No. 33554.01 | Page: 2 of 2

Project: 642 Allens Avenue | Date: 7/6/2018

Location: City: Providence State: RI

LOW FLOW CALIBRATION:

Intial Calibration:

Specific Conductance:	Instrument and Number:	YSI	Standard Solution:	1000	Reading:	1012
pH (s.u.):	Instrument and Number:	YSI	Standard Solution:	4/7	Reading:	4.24/7.27
DO (mg/L):	Instrument and Number:	YSI	Standard Solution:	100%	Reading:	83.3
ORP (mvolts:)	Instrument and Number:	YSI	Standard Solution:	237.5	Reading:	198.5
Turbidity (NTU):	Instrument and Number:	Lamotte	Standard Solution:	0/1	Reading:	0/1

Bump Check:

Specific Conductance:	Instrument and Number:	YSI	Standard Solution:	1000	Reading:	1005
pH (s.u.):	Instrument and Number:	YSI	Standard Solution:	4/7	Reading:	4.21/7.13
DO (mg/L):	Instrument and Number:	YSI	Standard Solution:	100	Reading:	94
ORP (mvolts:)	Instrument and Number:	YSI	Standard Solution:	237.5	Reading:	NA
Turbidity (NTU):	Instrument and Number:	Lamotte	Standard Solution:	0/1	Reading:	0/1

APPENDIX D

INVESTIGATION DERIVED WASTE (IDW) SHIPPING RECORDS

6-11 5HRS Truck 5181

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1400759936-00 SC PPW 5/22/2014 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	RID007918774	1	(800) 483-3718	006070212 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Aliens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors 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
Clean Harbors of Braintree Inc
1 Hill Avenue
Braintree, MA 02184
Facility's Phone: (781) 380-7100
U.S. EPA ID Number: MAD053452637

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON DOT REGULATED MATERIAL. (PURGEWATER)	018	DM	990	G	MA99 [redacted]
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. U57442A 18 X55
For Amy Willoughby.

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: #7060 Agent For PAUL D HOGAN Narragansett Electric — Signature: Paul D Hogan — Month 07 Day 02 Year 14

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: HKS WHITE — Signature: [signature] — Month 07 Day 02 Year 14
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number: U.S. EPA ID Number:
18b. Alternate Facility (or Generator)
Facility's Phone: Month Day Year
18c. Signature of Alternate Facility (or Generator)

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)			
1. H141	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: Huyen Hoang — Signature: [signature] — Month 7 Day 2 Year 14

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 140075993600 SC PPW 5/22/2014 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: RIDO07918774
2. Page 1 of: 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 006070213 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: ~~(781) 907-3647 ATTN: Susan Brochu~~

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name: Clean Harbors 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
Clean Harbors of Braintree Inc
1 Hill Avenue
Braintree, MA 02184
Facility's Phone: ~~(781) 380-7100~~
U.S. EPA ID Number: MAD053452637

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL. (SOIL CUTTINGS)	017	DM	6600	P	[redacted]	MA99	R015
	2. NON DOT REGULATED MATERIAL. (OILY DEBRIS)	002	DM	300	P	MA01	R015	
	3. NON DOT REGULATED MATERIAL. (PURGEWATER)	27	DM	1485	G	MA99	[redacted]	
	4.							

14. Special Handling Instructions and Additional Information
1. U57441RIR 17x55
2. R40179RIR 2x55
3. U57442A 27x55
For AMY WILLOUGHBY

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: PAUL D. HOGAN #7060 agent for Narragansett Electric
Signature: Paul D Hogan
Month/Day/Year: 07/01/14

TRANSPORTER INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CHRIS WHITE
Signature:
Month/Day/Year: 07/01/14

Transporter 2 Printed/Typed Name
Signature:
Month/Day/Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
U.S. EPA ID Number

18b. Alternate Facility (or Generator)
Facility's Phone:
Month/Day/Year:

18c. Signature of Alternate Facility (or Generator)

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. H141 3. H141 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: Huyen Hoang
Signature:
Month/Day/Year: 7/1/14

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

TRK# 5181

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1504013758-001 SC PPW 12/4/2015 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	RID007918774	1	(800) 483-3718	009024489 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors Environmental Service, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
Safety Kleen Systems Inc
U.S. EPA ID Number: TXD000812305

8. Designated Facility Name and Site Address
Clean Harbors Environmental Service, Inc.
2900 Rockefeller Avenue
Cleveland, OH 44115
Facility's Phone: (216) 429-2402
U.S. EPA ID Number: OHD000724153

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. **NON DOT REGULATED MATERIAL, (PURGEWATER)**	003	DM	130	G.	R015		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. U57442A (3x55)

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: Agent For PAUL D. HOGAN Narragansett Electric — Signature: [signature] — Month 12 Day 11 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: Gustavo Barrilla — Signature: [signature] — Month 12 Day 11 Year 15
Transporter 2 Printed/Typed Name: Joel Gadd — Signature: [signature] — Month 12 Day 18 Year 15

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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.
H070			

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: JOHN MERSH — Signature: [signature] — Month 12 Day 29 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

TRUCK # SR26979

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1704639025-001 SC PPW 8/28/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: RIR000791877 4
2. Page 1 of: 1
3. Emergency Response Phone: (800) 483-3748
4. Manifest Tracking Number: 010905957 FLE

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905
U.S. EPA ID Number

6. Transporter 1 Company Name
Clean Harbors 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
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	004	DM	200	G	R015		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. T26781 NAPLRI
4x55

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: #9215 AGENT FOR JIM LENOLF NARRAGANSETT ELECTRIC
Signature: #9215 AGENT FOR TNEC
Month 09 Day 15 Year 17

INTERNATIONAL
16. International Shipments ☐ Import to U.S. ☐ 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: GREG LUNN
Signature
Month 09 Day 15 Year 17
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
U.S. EPA ID Number
18b. Alternate Facility (or Generator)
Facility's Phone:
Month Day Year
18c. Signature of Alternate Facility (or Generator)

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 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: Bethany Mashea
Signature
Month 9 Day 27 Year 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

TRUCK #

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1704639025-001 SC PPW 8/28/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: RID007918774
2. Page 1 of: 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 010905972 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name: Clean Harbors 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
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	01	DM	55	G	R015		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.T26781NAPLRI

1X55

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: #1015 AGENT FOR Jim DEWOLF NARRAGANSETT ELECTRIC
Signature: J DEWOLF #1015 AGENT FOR TNEC
Month: 9 Day: 19 Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: FRANCISCO BOATO
Signature: F Boato
Month: 9 Day: 19 Year: 17

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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.
H040			

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: Clean Harbors Agent for CHES
Signature
Month: 10 Day: 8 Year: 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Truck # SR26939

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1704639025-001 SC PPW 8/28/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	RIDOO7918774	1 of 5T	(800) 483-3718	010905986 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
TSMT - Tri State Motor Transit
U.S. EPA ID Number: MOD095038998

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	007	DM	350	G	R015		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. T26781NAPLRI
9 X 55

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: #1315 AGENT FOR JIM DEWOLF NARRAGANSETT ELECTRIC — Signature: #1315 AGENT FOR TNEC — Month 09 Day 25 Year 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: GREG LUNN — Signature — Month 09 Day 25 Year 17
Transporter 2 Printed/Typed Name: W. ZAMBROWSKI — Signature — Month 9 Day 27 Year 17

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
U.S. EPA ID Number
18b. Alternate Facility (or Generator)
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.
H040			

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: Bethany Macher — Signature — Month 10 Day 15 Year 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: RID 0079187774

22. Page: 2/2

23. Manifest Tracking Number: 01090 5986 FLE

24. Generator's Name: Narragansett Electric

25. Transporter 3 Company Name: Clean Harbors Environmental Services Inc.

U.S. EPA ID Number: MAD039322250

26. Transporter _____ Company Name

U.S. EPA ID Number

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
	T							
	P							
	O							

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: SHEILA TAYLOR (Agent for CHES)

Signature: Sheila Taylor

Month: 10 Day: 9 Year: 17

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Truck # SR26939

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1704639025-001 SC PPW 8/28/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
RID007918774	2 of 3	(800) 483-3718	010906009 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
TRI STATE Motor Transit
U.S. EPA ID Number: MOD095038998

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	007	DM	350	G	R015		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. T26781NAPLRI
7X55

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: JIM DEWOLF 4215 AGENT FOR NARRAGANSETT ELECT. Signature: [signature] 4215 AGENT FOR TNEC Month: 09 Day: 29 Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: Greg Lunn Signature: [signature] Month: 09 Day: 27 Year: 17

Transporter 2 Printed/Typed Name: George de la Torre Signature: [signature] Month: 10 Day: 01 Year: 17

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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.
H040			

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: Bethany Macken Signature: [signature] Month: 10 Day: 15 Year: 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: RID 007918774

22. Page: 2/2

23. Manifest Tracking Number: 010906 009 FCE

24. Generator's Name: Narragansett Electric Company

25. Transporter 3 Company Name: Clean Harbors Environmental Services Inc.

U.S. EPA ID Number: MAD039322250

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
	T					
	P					
	O					

GENERATOR

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: SHEILA TAYLOR (Agent for CHES) Signature: Sheila Taylor Month: 10 Day: 9 Year: 17

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name Signature Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TRUCK #SR26939

RI 1704639025-001 SC PPW 8/28/2017 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	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	RID007918774	1	(800) 483-3718	010906030 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors 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
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	003	DM	150	G	R015		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. T26781HAPLRI
3x55

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: #1015 AGENT FOR NARRAGANSETT ELECT
Signature: #1015 AGENT FOR TNEC
Month 10 Day 04 Year 17

TRANSPORTER INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: GREG LUNN
Signature
Month 10 Day 04 Year 17
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
U.S. EPA ID Number
18b. Alternate Facility (or Generator)
Facility's Phone:
Month Day Year
18c. Signature of Alternate Facility (or Generator)

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

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: Amanda Hodges
Signature
Month 10 Day 5 Year 17

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Truck #

Please print or type. (Form designed for use on elite (12-pitch) typewriter) RI 1704639025-001 SC PPW 8/28/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
RID007918774	1	(800) 483-3718	010906067 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: ~~(781) 907-3647~~ ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors 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
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: ~~(870) 863-7173~~
U.S. EPA ID Number
ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	03	DM	165	G	~~R015~~		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. T26781NAPLRI 3 X 55

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: #1215 AGENT FOR Jim DeWolf Narragansett Electric | Signature: #1215 AGENT FOR TNEC | Month: 10 | Day: 13 | Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: FRANCISCO BRITO | Signature: BRITO | Month: 10 | Day: 13 | Year: 17

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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.
H040			

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: Candace Seguin | Signature: Candace Seg | Month: 11 | Day: 16 | Year: 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1704639025-001 SC PPW 8/28/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	RID007918774	1	(800) 483-3718	010906071 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number
MAD039322250

7. Transporter 2 Company Name
Clean Harbors
U.S. EPA ID Number
MAD039322250

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number
ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	3	DM	165	G	R015
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. T26781NAPLRI

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: TIM RENOLF #105 AGENT for NARRAGANSETT ELECTRIC
Signature: #105 AGENT for TNEC
Month 10 Day 20 Year 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: Joshua Malama
Signature: Joshua Malama
Month 10 Day 20 Year 17
Transporter 2 Printed/Typed Name: M. Mamy
Signature:
Month 10 Day 24 Year 17

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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.
H040			

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: Marcella Montes
Signature:
Month 11 Day 2 Year 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Truck # 621134

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1704639025-001 SC PPW 10/10/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
RID007918774	1	(800) 483-3718	010906106 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
Bedrock Inc DBA TSMT Inc
U.S. EPA ID Number: MOD095038998

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	003	DM	150	G	R015		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. T26781NAPLRI 3 VOA

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: JIM DEWOLF #1215 AGENT FOR NARRAGANSETT ELECTRIC
Signature: #1215 AGENT FOR TNEC
Month: 10 Day: 27 Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: JIM DEWOLF #1215
Signature:
Month: 10 Day: 27 Year: 17

Transporter 2 Printed/Typed Name: Judy Wilson
Signature: Judy Wilson
Month: 11 Day: 2 Year: 17

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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.
H040			

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: Kymishla K. Brito
Signature: Kymishla K. Brito
Month: 11 Day: 13 Year: 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: RIDOD7818774

22. Page: 2 2

23. Manifest Tracking Number: 010904102dfk

24. Generator's Name: Navragansett

25. Transporter 3 Company Name: Clean Harbors Environmental Services Inc.

U.S. EPA ID Number: MAD039322250

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
	T P O					

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Stephanie Matheny (Agent for CHES) Signature: Stephanie Matheny Month: 11 Day: 15 Year: 17

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name _____ Signature _____ Month _____ Day _____ Year _____

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

Truck # 601134

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
RID007918774	1	(800) 483-3718	010906127 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors 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
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	2	DM	110	G	R015		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. T26781NAPLRI 2X55

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: #1215 AGENT FOR JIM DEWOLF NARRAGANSETT ELECTRIC
Signature: JDW07 #1215 AGENT FOR TNEC
Month: 11 Day: 03 Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Transporter signature (for exports only):
Port of entry/exit:
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Joshua Makeyev
Signature:
Month: 11 Day: 03 Year: 17
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
18b. Alternate Facility (or Generator) Manifest Reference Number:
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.
H040			

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: Melissa Thompson
Signature:
Month: 11 Day: 12 Year: 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Truck # 621134

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1704639025-001 SC PPW 10/10/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	RID007918774	1	(800) 483-3718	010906160 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name
Clean Harbors 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
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	5	DM	330	G	R015
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1 TRAILER MANIFEST

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: J. Howe AGENT FOR NARRAGANSETT ELECTRIC | Signature: J. Howe AGENT FOR TNEC | Month: 11 | Day: 10 | Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: Joshua Malang | Signature: Joshua Malang | Month: 11 | Day: 10 | Year: 17
Transporter 2 Printed/Typed Name: | Signature: | Month: | Day: | Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
18b. Alternate Facility (or Generator) Manifest Reference Number:
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.
H040			

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: Amanda Hodges | Signature: A Hodges | Month: 11 | Day: 27 | Year: 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

TRUCK # 621134

Please print or type. (Form designed for use on elite (12-pitch) typewriter) RI 1704639025-001 SC PPW 10/10/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
RID007918774	1 ST	(800) 483-3718	010906175 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name: Clean Harbors Environmental Services, Inc. — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: TSMT — U.S. EPA ID Number: M0D079038798

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	1	DM	55	G	R015
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.T26781NAPLRI
1X55

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: #1215 AGENT FOR Narragansett Electric — Signature: #1215 AGENT FOR TNEC — Month 11 Day 17 Year 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: Joshua Malcom — Signature: — Month 11 Day 17 Year 17

Transporter 2 Printed/Typed Name: W. Chase Ingalls-Huffine — Signature: — Month 11 Day 17 Year 17

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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.
H040			

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: Linda Goodwin — Signature: Linda Goodwin — Month 12 Day 12 Year 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: RID 007 918 774

22. Page: 2/2

23. Manifest Tracking Number: 010906175 FLE

24. Generator's Name: Narragansett Electric Company

25. Transporter 3 Clean Harbors Environmental Services Inc. — U.S. EPA ID Number: MAD039322250

26. Transporter _____ Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
	T P O							

32. Special Handling Instructions and Additional Information

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Sheila Taylor agent for Clean Harbors — Signature: Sheila Taylor — Month: 12 Day: 2 Year: 17

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name: _____ Signature: _____ Month: _____ Day: _____ Year: _____

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Truck # 621134

RI 1704639025-001 SC PPW 10/10/2017

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: RID007918774
2. Page 1 of: 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 010906196 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name: Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: Tri state motor transit
U.S. EPA ID Number: MOD095038998

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	1	DM	55	G	R015
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.T26781NAPLRI

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: JIM DENOLF AGENT FOR NARRAGANSETT ELECTRIC
Signature: [signature] AGENT FOR TNEC
Month: 11 Day: 22 Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Joshua Malama
Signature: [signature]
Month: 11 Day: 22 Year: 17

Transporter 2 Printed/Typed Name: Brian McCurdy
Signature: [signature]
Month: 12 Day: 4 Year: 17

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
U.S. EPA ID Number

18b. Alternate Facility (or Generator)
Facility's Phone:
Month: Day: Year:

18c. Signature of Alternate Facility (or Generator)

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 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: Brittany Mosher
Signature: [signature]
Month: 12 Day: 15 Year: 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: RIDOO7918774

22. Page: 2 of 2

23. Manifest Tracking Number: 010906196 FLE

24. Generator's Name: Narragansett Electric

25. Transporter 3 Company Name: Clean Harbors Environmental Services Inc

U.S. EPA ID Number: MAD039322250

26. Transporter ____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
	T P O					

32. Special Handling Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Regina Burger (Agent for CHES)
Signature: Regina Burger
Month: 12 Day: 17 Year:

34. Transporter ____ Acknowledgment of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Truck #621134

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) RI 1704639025-001 SC PPW 10/10/2017 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
RID007918774	1	(800) 483-3718	010906208 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
Generator's Phone: (781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

6. Transporter 1 Company Name: Clean Harbors 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
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	01	DM	55	G	R015		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. T26781NAPLRI

1 X 55

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: Jim DeNolf #BIS AGENT FOR NARRAGANSETT ELECTRIC
Signature: J DeNolf #BIS AGENT FOR TNEC
Month: 1 Day: 29 Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: FRANCISCO BRITO
Signature: F Brito
Month: 11 Day: 29 Year: 17

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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.
H040			

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: Lauren Hurd
Signature: Lauren Hurd
Month: 12 Day: 21 Year: 17

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

LD# 0230640 TK# 621134

RI 1704639025-001 SC PPW 10/10/2017

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	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	RID007918774	1	(800) 483-3718	010906326 FLE

GENERATOR

5. Generator's Name and Mailing Address
Narragansett Electric Company
40 Sylvan Road
Waltham, MA 02451
(781) 907-3647 ATTN: Susan Brochu

Generator's Site Address (if different than mailing address)
642 Allens Avenue
Providence, RI 02905

Generator's Phone:

6. Transporter 1 Company Name: Clean Harbors Environmental Services, Inc. — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: Bed Rock Inc dba TSMT — U.S. EPA ID Number: MOD985038998

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173

U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON DOT REGULATED MATERIAL, (PURGEWATER, OIL)	001	DM	30	G.	R015
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1-1267618APL21
1X55 DM

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: On behalf of Narragansett Electric Co. Gustavo Bonilla — Signature: On behalf of Narragansett Electric Co. — Month 12 Day 27 Year 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ 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: Gustavo Bonilla #082972 — Signature: G. Bonilla #082972 — Month 12 Day 27 Year 17

Transporter 2 Printed/Typed Name: Marsha Warren — Signature: Marsha Warren — Month 1 Day 9 Year 18

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ 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.
H040			

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: Bethany Machen — Signature: Bethany Machen — Month 1 Day 21 Year 18

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: RIDOO7918774

22. Page: 2 of 2

23. Manifest Tracking Number: 010906324 fle

24. Generator's Name: Narragansett Electric Company

25. Transporter 3 Company Name: Clean Harbors Environmental Services Inc.

U.S. EPA ID Number: MAD039322250

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

T. P. O.

32. Special Handling Instructions and Additional Information

GENERATOR

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: LAURIE SMITH-AGENT CHES

Signature: Laurie Smith

Month: 1 Day: 12 Year: 18

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

APPENDIX E

LABORATORY REPORTS

CERTIFICATE OF ANALYSIS

Meg Kilpatrick
GZA GeoEnvironmental, Inc.
530 Broadway
Providence, RI 02909

RE: 642 Allens Ave (03.0033554.00)
ESS Laboratory Work Order Number: 1406371

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 11:02 am, Jun 24, 2014

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

SAMPLE RECEIPT

The following samples were received on June 17, 2014 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1406371-01	GZ307s	Ground Water	8260B
1406371-02	GZ309d	Ground Water	8260B
1406371-03	VHB1	Ground Water	8260B
1406371-04	GZ308s	Ground Water	8260B
1406371-05	GZ320d	Ground Water	8260B
1406371-06	VHB10	Ground Water	8260B
1406371-07	VHB8R	Ground Water	8260B
1406371-08	Trip Blank 061714	Aqueous	8260B

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

PROJECT NARRATIVE

8260B Volatile Organic Compounds

CF41827-BS1 **Blank Spike recovery is above upper control limit (B+).**
Bromomethane (143% @ 70-130%), Hexachlorobutadiene (132% @ 70-130%)

CXF0246-CCV1 **Continuing Calibration recovery is above upper control limit (C+).**
1,4-Dioxane - Screen (164% @ 70-130%), Bromomethane (149% @ 70-130%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ307s
Date Sampled: 06/17/14 11:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 1:08	CXF0246	CF41827
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
2-Butanone	ND (0.0100)		8260B		1	06/19/14 1:08	CXF0246	CF41827
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 1:08	CXF0246	CF41827
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Acetone	ND (0.0100)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Benzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 1:08	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ307s
Date Sampled: 06/17/14 11:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Bromoform	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Bromomethane	ND (0.0020)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Chloroethane	ND (0.0020)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Chloroform	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Chloromethane	ND (0.0020)		8260B		1	06/19/14 1:08	CXF0246	CF41827
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Ethylbenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Isopropylbenzene	**0.0241** (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Naphthalene	**0.0104** (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
n-Butylbenzene	**0.0036** (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
n-Propylbenzene	**0.0148** (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
sec-Butylbenzene	**0.0058** (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Styrene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Tetrachloroethene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ307s
Date Sampled: 06/17/14 11:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Toluene	**0.0019** (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Trichloroethene	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Vinyl Chloride	ND (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Xylene O	**0.0012** (0.0010)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 1:08	CXF0246	CF41827
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 1:08		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 1:08		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*102 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*101 %*		*70-130*
Surrogate: Dibromofluoromethane	*106 %*		*70-130*
Surrogate: Toluene-d8	*94 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ309d
Date Sampled: 06/17/14 11:46
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/18/14 22:39	CXF0246	CF41827
1-Chlorohexane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
2-Butanone	ND (0.0100)		8260B		1	06/18/14 22:39	CXF0246	CF41827
2-Chlorotoluene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
2-Hexanone	ND (0.0100)		8260B		1	06/18/14 22:39	CXF0246	CF41827
4-Chlorotoluene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Acetone	ND (0.0100)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Benzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Bromobenzene	ND (0.0020)		8260B		1	06/18/14 22:39	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ309d
Date Sampled: 06/17/14 11:46
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Bromodichloromethane	ND (0.0006)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Bromoform	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Bromomethane	ND (0.0020)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Carbon Disulfide	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Chlorobenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Chloroethane	ND (0.0020)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Chloroform	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Chloromethane	ND (0.0020)		8260B		1	06/18/14 22:39	CXF0246	CF41827
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Dibromochloromethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Dibromomethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Diethyl Ether	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Di-isopropyl ether	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Ethylbenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Hexachloroethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Isopropylbenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Methylene Chloride	ND (0.0020)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Naphthalene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
n-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
n-Propylbenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
sec-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Styrene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
tert-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Tetrachloroethene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ309d
Date Sampled: 06/17/14 11:46
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Toluene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Trichloroethene	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Vinyl Acetate	ND (0.0050)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Vinyl Chloride	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Xylene O	ND (0.0010)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Xylene P,M	ND (0.0020)		8260B		1	06/18/14 22:39	CXF0246	CF41827
Xylenes (Total)	ND (0.0020)		8260B		1	06/18/14 22:39		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/18/14 22:39		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*101 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*93 %*		*70-130*
Surrogate: Dibromofluoromethane	*107 %*		*70-130*
Surrogate: Toluene-d8	*95 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB1
Date Sampled: 06/17/14 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 1:45	CXF0246	CF41827
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
2-Butanone	ND (0.0100)		8260B		1	06/19/14 1:45	CXF0246	CF41827
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 1:45	CXF0246	CF41827
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Acetone	ND (0.0100)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Benzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 1:45	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB1
Date Sampled: 06/17/14 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Bromoform	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Bromomethane	ND (0.0020)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Chloroethane	ND (0.0020)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Chloroform	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Chloromethane	ND (0.0020)		8260B		1	06/19/14 1:45	CXF0246	CF41827
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Ethylbenzene	**0.0016** (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Isopropylbenzene	**0.0118** (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Naphthalene	**0.0013** (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
n-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
n-Propylbenzene	**0.0024** (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
sec-Butylbenzene	**0.0033** (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Styrene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Tetrachloroethene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB1
Date Sampled: 06/17/14 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Toluene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Trichloroethene	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Vinyl Chloride	ND (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Xylene O	**0.0010** (0.0010)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 1:45	CXF0246	CF41827
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 1:45		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 1:45		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*97 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*100 %*		*70-130*
Surrogate: Dibromofluoromethane	*102 %*		*70-130*
Surrogate: Toluene-d8	*96 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ308s
Date Sampled: 06/17/14 15:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 2:22	CXF0246	CF41827
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
2-Butanone	ND (0.0100)		8260B		1	06/19/14 2:22	CXF0246	CF41827
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 2:22	CXF0246	CF41827
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Acetone	ND (0.0100)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Benzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 2:22	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ308s
Date Sampled: 06/17/14 15:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Bromoform	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Bromomethane	ND (0.0020)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Chloroethane	ND (0.0020)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Chloroform	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Chloromethane	ND (0.0020)		8260B		1	06/19/14 2:22	CXF0246	CF41827
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Ethylbenzene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Isopropylbenzene	**0.0097** (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Naphthalene	**0.0028** (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
n-Butylbenzene	**0.0018** (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
n-Propylbenzene	**0.0082** (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
sec-Butylbenzene	**0.0024** (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Styrene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
tert-Butylbenzene	**0.0010** (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Tetrachloroethene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ308s
Date Sampled: 06/17/14 15:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Toluene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Trichloroethene	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Vinyl Chloride	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Xylene O	ND (0.0010)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 2:22	CXF0246	CF41827
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 2:22		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 2:22		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*100 %*		*70-130*
Surrogate: Toluene-d8	*95 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ320d
Date Sampled: 06/17/14 14:16
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/18/14 23:16	CXF0246	CF41827
1-Chlorohexane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
2-Butanone	ND (0.0100)		8260B		1	06/18/14 23:16	CXF0246	CF41827
2-Chlorotoluene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
2-Hexanone	ND (0.0100)		8260B		1	06/18/14 23:16	CXF0246	CF41827
4-Chlorotoluene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Acetone	ND (0.0100)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Benzene	**0.0015** (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Bromobenzene	ND (0.0020)		8260B		1	06/18/14 23:16	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ320d
Date Sampled: 06/17/14 14:16
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Bromodichloromethane	ND (0.0006)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Bromoform	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Bromomethane	ND (0.0020)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Carbon Disulfide	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Chlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Chloroethane	ND (0.0020)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Chloroform	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Chloromethane	ND (0.0020)		8260B		1	06/18/14 23:16	CXF0246	CF41827
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Dibromochloromethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Dibromomethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Diethyl Ether	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Di-isopropyl ether	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Ethylbenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Hexachloroethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Isopropylbenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Methylene Chloride	ND (0.0020)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Naphthalene	**0.0011** (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
n-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
n-Propylbenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
sec-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Styrene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
tert-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Tetrachloroethene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ320d
Date Sampled: 06/17/14 14:16
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Toluene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Trichloroethene	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Vinyl Acetate	ND (0.0050)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Vinyl Chloride	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Xylene O	ND (0.0010)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Xylene P,M	ND (0.0020)		8260B		1	06/18/14 23:16	CXF0246	CF41827
Xylenes (Total)	ND (0.0020)		8260B		1	06/18/14 23:16		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/18/14 23:16		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*104 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*93 %*		*70-130*
Surrogate: Dibromofluoromethane	*107 %*		*70-130*
Surrogate: Toluene-d8	*95 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB10
Date Sampled: 06/17/14 14:58
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 0:31	CXF0246	CF41827
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
2-Butanone	ND (0.0100)		8260B		1	06/19/14 0:31	CXF0246	CF41827
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 0:31	CXF0246	CF41827
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Acetone	ND (0.0100)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Benzene	**0.0808** (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 0:31	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB10
Date Sampled: 06/17/14 14:58
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Bromoform	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Bromomethane	ND (0.0020)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Chloroethane	ND (0.0020)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Chloroform	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Chloromethane	ND (0.0020)		8260B		1	06/19/14 0:31	CXF0246	CF41827
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Ethylbenzene	**0.0017** (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Isopropylbenzene	**0.0055** (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Naphthalene	**0.0192** (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
n-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
n-Propylbenzene	**0.0019** (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
sec-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Styrene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Tetrachloroethene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB10
Date Sampled: 06/17/14 14:58
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Toluene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Trichloroethene	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Vinyl Chloride	ND (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Xylene O	**0.0038** (0.0010)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 0:31	CXF0246	CF41827
Xylenes (Total)	**0.0038** (0.0020)		8260B		1	06/19/14 0:31		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 0:31		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*104 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*96 %*		*70-130*
Surrogate: Dibromofluoromethane	*107 %*		*70-130*
Surrogate: Toluene-d8	*92 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB8R
Date Sampled: 06/17/14 15:42
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/18/14 23:53	CXF0246	CF41827
1-Chlorohexane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
2-Butanone	ND (0.0100)		8260B		1	06/18/14 23:53	CXF0246	CF41827
2-Chlorotoluene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
2-Hexanone	ND (0.0100)		8260B		1	06/18/14 23:53	CXF0246	CF41827
4-Chlorotoluene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Acetone	ND (0.0100)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Benzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Bromobenzene	ND (0.0020)		8260B		1	06/18/14 23:53	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB8R
Date Sampled: 06/17/14 15:42
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Bromodichloromethane	ND (0.0006)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Bromoform	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Bromomethane	ND (0.0020)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Carbon Disulfide	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Chlorobenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Chloroethane	ND (0.0020)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Chloroform	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Chloromethane	ND (0.0020)		8260B		1	06/18/14 23:53	CXF0246	CF41827
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Dibromochloromethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Dibromomethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Diethyl Ether	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Di-isopropyl ether	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Ethylbenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Hexachloroethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Isopropylbenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Methylene Chloride	ND (0.0020)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Naphthalene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
n-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
n-Propylbenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
sec-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Styrene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
tert-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Tetrachloroethene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB8R
Date Sampled: 06/17/14 15:42
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Toluene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Trichloroethene	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Vinyl Acetate	ND (0.0050)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Vinyl Chloride	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Xylene O	ND (0.0010)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Xylene P,M	ND (0.0020)		8260B		1	06/18/14 23:53	CXF0246	CF41827
Xylenes (Total)	ND (0.0020)		8260B		1	06/18/14 23:53		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/18/14 23:53		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*104 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*91 %*		*70-130*
Surrogate: Dibromofluoromethane	*107 %*		*70-130*
Surrogate: Toluene-d8	*94 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank 061714
Date Sampled: 06/17/14 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-08
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/18/14 19:34	CXF0246	CF41827
1-Chlorohexane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
2-Butanone	ND (0.0100)		8260B		1	06/18/14 19:34	CXF0246	CF41827
2-Chlorotoluene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
2-Hexanone	ND (0.0100)		8260B		1	06/18/14 19:34	CXF0246	CF41827
4-Chlorotoluene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Acetone	ND (0.0100)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Benzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Bromobenzene	ND (0.0020)		8260B		1	06/18/14 19:34	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank 061714
Date Sampled: 06/17/14 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-08
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Bromodichloromethane	ND (0.0006)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Bromoform	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Bromomethane	ND (0.0020)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Carbon Disulfide	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Chlorobenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Chloroethane	ND (0.0020)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Chloroform	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Chloromethane	ND (0.0020)		8260B		1	06/18/14 19:34	CXF0246	CF41827
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Dibromochloromethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Dibromomethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Diethyl Ether	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Di-isopropyl ether	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Ethylbenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Hexachloroethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Isopropylbenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Methylene Chloride	ND (0.0020)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Naphthalene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
n-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
n-Propylbenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
sec-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Styrene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
tert-Butylbenzene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Tetrachloroethene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank 061714
Date Sampled: 06/17/14 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406371
ESS Laboratory Sample ID: 1406371-08
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Toluene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Trichloroethene	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Vinyl Acetate	ND (0.0050)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Vinyl Chloride	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Xylene O	ND (0.0010)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Xylene P,M	ND (0.0020)		8260B		1	06/18/14 19:34	CXF0246	CF41827
Xylenes (Total)	ND (0.0020)		8260B		1	06/18/14 19:34		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/18/14 19:34		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*99 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*91 %*		*70-130*
Surrogate: Dibromofluoromethane	*104 %*		*70-130*
Surrogate: Toluene-d8	*93 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41827 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41827 - 5030B										
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0250*		mg/L	*0.02500*		*100*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0230*		mg/L	*0.02500*		*92*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0264*		mg/L	*0.02500*		*106*	*70-130*			
Surrogate: Toluene-d8	*0.0240*		mg/L	*0.02500*		*96*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.91		ug/L	10.00		99	70-130			
1,1,1-Trichloroethane	11.0		ug/L	10.00		110	70-130			
1,1,2,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130			
1,1,2-Trichloroethane	10.3		ug/L	10.00		103	70-130			
1,1-Dichloroethane	9.11		ug/L	10.00		91	70-130			
1,1-Dichloroethene	10.7		ug/L	10.00		107	70-130			
1,1-Dichloropropene	11.0		ug/L	10.00		110	70-130			
1,2,3-Trichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,2,3-Trichloropropane	9.11		ug/L	10.00		91	70-130			
1,2,4-Trichlorobenzene	11.0		ug/L	10.00		110	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41827 - 5030B										
1,2,4-Trimethylbenzene	10.2		ug/L	10.00		102	70-130			
1,2-Dibromo-3-Chloropropane	9.36		ug/L	10.00		94	70-130			
1,2-Dibromoethane	10.6		ug/L	10.00		106	70-130			
1,2-Dichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,2-Dichloroethane	10.9		ug/L	10.00		109	70-130			
1,2-Dichloropropane	8.47		ug/L	10.00		85	70-130			
1,3,5-Trimethylbenzene	10.4		ug/L	10.00		104	70-130			
1,3-Dichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,3-Dichloropropane	9.29		ug/L	10.00		93	70-130			
1,4-Dichlorobenzene	10.9		ug/L	10.00		109	70-130			
1,4-Dioxane - Screen	434		ug/L	200.0		217	0-332			
1-Chlorohexane	8.49		ug/L	10.00		85	70-130			
2,2-Dichloropropane	10.9		ug/L	10.00		109	70-130			
2-Butanone	42.3		ug/L	50.00		85	70-130			
2-Chlorotoluene	10.8		ug/L	10.00		108	70-130			
2-Hexanone	35.9		ug/L	50.00		72	70-130			
4-Chlorotoluene	10.6		ug/L	10.00		106	70-130			
4-Isopropyltoluene	10.5		ug/L	10.00		105	70-130			
4-Methyl-2-Pentanone	40.4		ug/L	50.00		81	70-130			
Acetone	36.2		ug/L	50.00		72	70-130			
Benzene	9.67		ug/L	10.00		97	70-130			
Bromobenzene	10.4		ug/L	10.00		104	70-130			
Bromochloromethane	11.7		ug/L	10.00		117	70-130			
Bromodichloromethane	10.3		ug/L	10.00		103	70-130			
Bromoform	9.39		ug/L	10.00		94	70-130			
Bromomethane	14.3		ug/L	10.00		143	70-130			B+
Carbon Disulfide	9.74		ug/L	10.00		97	70-130			
Carbon Tetrachloride	11.2		ug/L	10.00		112	70-130			
Chlorobenzene	10.5		ug/L	10.00		105	70-130			
Chloroethane	8.65		ug/L	10.00		86	70-130			
Chloroform	11.3		ug/L	10.00		113	70-130			
Chloromethane	8.23		ug/L	10.00		82	70-130			
cis-1,2-Dichloroethene	11.2		ug/L	10.00		112	70-130			
cis-1,3-Dichloropropene	9.60		ug/L	10.00		96	70-130			
Dibromochloromethane	10.6		ug/L	10.00		106	70-130			
Dibromomethane	11.0		ug/L	10.00		110	70-130			
Dichlorodifluoromethane	9.22		ug/L	10.00		92	70-130			
Diethyl Ether	8.27		ug/L	10.00		83	70-130			
Di-isopropyl ether	7.27		ug/L	10.00		73	70-130			
Ethyl tertiary-butyl ether	8.42		ug/L	10.00		84	70-130			
Ethylbenzene	9.49		ug/L	10.00		95	70-130			
Hexachlorobutadiene	13.2		ug/L	10.00		132	70-130			B+
Hexachloroethane	10.3		ug/L	10.00		103	70-130			
Isopropylbenzene	10.2		ug/L	10.00		102	70-130			
Methyl tert-Butyl Ether	9.24		ug/L	10.00		92	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41827 - 5030B										
Methylene Chloride	10.8		ug/L	10.00		108	70-130			
Naphthalene	10.5		ug/L	10.00		105	70-130			
n-Butylbenzene	10.2		ug/L	10.00		102	70-130			
n-Propylbenzene	10.2		ug/L	10.00		102	70-130			
sec-Butylbenzene	10.8		ug/L	10.00		108	70-130			
Styrene	9.24		ug/L	10.00		92	70-130			
tert-Butylbenzene	10.7		ug/L	10.00		107	70-130			
Tertiary-amyl methyl ether	8.46		ug/L	10.00		85	70-130			
Tetrachloroethene	7.04		ug/L	10.00		70	70-130			
Tetrahydrofuran	7.43		ug/L	10.00		74	70-130			
Toluene	10.4		ug/L	10.00		104	70-130			
trans-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130			
trans-1,3-Dichloropropene	9.00		ug/L	10.00		90	70-130			
Trichloroethene	10.4		ug/L	10.00		104	70-130			
Trichlorofluoromethane	10.7		ug/L	10.00		107	70-130			
Vinyl Acetate	10.6		ug/L	10.00		106	70-130			
Vinyl Chloride	9.00		ug/L	10.00		90	70-130			
Xylene O	10.2		ug/L	10.00		102	70-130			
Xylene P,M	20.0		ug/L	20.00		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0266*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0230*		mg/L	*0.02500*		*92*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0275*		mg/L	*0.02500*		*110*	*70-130*			
Surrogate: Toluene-d8	*0.0235*		mg/L	*0.02500*		*94*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.41		ug/L	10.00		94	70-130	5	25	
1,1,1-Trichloroethane	10.8		ug/L	10.00		108	70-130	2	25	
1,1,2,2-Tetrachloroethane	9.94		ug/L	10.00		99	70-130	5	25	
1,1,2-Trichloroethane	10.4		ug/L	10.00		104	70-130	0.9	25	
1,1-Dichloroethane	9.12		ug/L	10.00		91	70-130	0.1	25	
1,1-Dichloroethene	10.5		ug/L	10.00		105	70-130	2	25	
1,1-Dichloropropene	11.3		ug/L	10.00		113	70-130	2	25	
1,2,3-Trichlorobenzene	10.2		ug/L	10.00		102	70-130	6	25	
1,2,3-Trichloropropane	9.00		ug/L	10.00		90	70-130	1	25	
1,2,4-Trichlorobenzene	10.2		ug/L	10.00		102	70-130	7	25	
1,2,4-Trimethylbenzene	9.53		ug/L	10.00		95	70-130	6	25	
1,2-Dibromo-3-Chloropropane	9.61		ug/L	10.00		96	70-130	3	25	
1,2-Dibromoethane	10.5		ug/L	10.00		105	70-130	0.9	25	
1,2-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	2	25	
1,2-Dichloroethane	11.1		ug/L	10.00		111	70-130	2	25	
1,2-Dichloropropane	9.01		ug/L	10.00		90	70-130	6	25	
1,3,5-Trimethylbenzene	10.2		ug/L	10.00		102	70-130	3	25	
1,3-Dichlorobenzene	10.7		ug/L	10.00		107	70-130	0.3	25	
1,3-Dichloropropane	9.21		ug/L	10.00		92	70-130	0.9	25	
1,4-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	5	25	
1,4-Dioxane - Screen	315		ug/L	200.0		158	0-332	32	200	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41827 - 5030B										
1-Chlorohexane	8.86		ug/L	10.00		89	70-130	4	25	
2,2-Dichloropropane	10.4		ug/L	10.00		104	70-130	4	25	
2-Butanone	42.1		ug/L	50.00		84	70-130	0.5	25	
2-Chlorotoluene	10.7		ug/L	10.00		107	70-130	0.7	25	
2-Hexanone	36.4		ug/L	50.00		73	70-130	1	25	
4-Chlorotoluene	10.4		ug/L	10.00		104	70-130	2	25	
4-Isopropyltoluene	10.4		ug/L	10.00		104	70-130	0.4	25	
4-Methyl-2-Pentanone	40.6		ug/L	50.00		81	70-130	0.5	25	
Acetone	36.5		ug/L	50.00		73	70-130	0.9	25	
Benzene	9.57		ug/L	10.00		96	70-130	1	25	
Bromobenzene	9.75		ug/L	10.00		98	70-130	6	25	
Bromochloromethane	11.1		ug/L	10.00		111	70-130	5	25	
Bromodichloromethane	10.2		ug/L	10.00		102	70-130	1	25	
Bromoform	9.18		ug/L	10.00		92	70-130	2	25	
Bromomethane	12.5		ug/L	10.00		125	70-130	13	25	
Carbon Disulfide	9.88		ug/L	10.00		99	70-130	1	25	
Carbon Tetrachloride	11.0		ug/L	10.00		110	70-130	2	25	
Chlorobenzene	10.6		ug/L	10.00		106	70-130	0.8	25	
Chloroethane	8.81		ug/L	10.00		88	70-130	2	25	
Chloroform	11.2		ug/L	10.00		112	70-130	0.4	25	
Chloromethane	7.88		ug/L	10.00		79	70-130	4	25	
cis-1,2-Dichloroethene	11.2		ug/L	10.00		112	70-130	0.4	25	
cis-1,3-Dichloropropene	9.19		ug/L	10.00		92	70-130	4	25	
Dibromochloromethane	10.3		ug/L	10.00		103	70-130	2	25	
Dibromomethane	10.8		ug/L	10.00		108	70-130	1	25	
Dichlorodifluoromethane	9.56		ug/L	10.00		96	70-130	4	25	
Diethyl Ether	8.39		ug/L	10.00		84	70-130	1	25	
Di-isopropyl ether	7.48		ug/L	10.00		75	70-130	3	25	
Ethyl tertiary-butyl ether	8.52		ug/L	10.00		85	70-130	1	25	
Ethylbenzene	9.38		ug/L	10.00		94	70-130	1	25	
Hexachlorobutadiene	11.9		ug/L	10.00		119	70-130	10	25	
Hexachloroethane	9.80		ug/L	10.00		98	70-130	5	25	
Isopropylbenzene	10.2		ug/L	10.00		102	70-130	0.1	25	
Methyl tert-Butyl Ether	9.45		ug/L	10.00		94	70-130	2	25	
Methylene Chloride	11.0		ug/L	10.00		110	70-130	2	25	
Naphthalene	9.47		ug/L	10.00		95	70-130	10	25	
n-Butylbenzene	9.73		ug/L	10.00		97	70-130	4	25	
n-Propylbenzene	10.0		ug/L	10.00		100	70-130	2	25	
sec-Butylbenzene	10.4		ug/L	10.00		104	70-130	3	25	
Styrene	9.32		ug/L	10.00		93	70-130	0.9	25	
tert-Butylbenzene	10.5		ug/L	10.00		105	70-130	2	25	
Tertiary-amyl methyl ether	8.62		ug/L	10.00		86	70-130	2	25	
Tetrachloroethene	7.11		ug/L	10.00		71	70-130	1	25	
Tetrahydrofuran	7.07		ug/L	10.00		71	70-130	5	25	
Toluene	10.4		ug/L	10.00		104	70-130	0.1	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41827 - 5030B										
trans-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130	0.09	25	
trans-1,3-Dichloropropene	8.92		ug/L	10.00		89	70-130	0.9	25	
Trichloroethene	10.5		ug/L	10.00		105	70-130	1	25	
Trichlorofluoromethane	10.5		ug/L	10.00		105	70-130	1	25	
Vinyl Acetate	10.6		ug/L	10.00		106	70-130	0.8	25	
Vinyl Chloride	8.78		ug/L	10.00		88	70-130	2	25	
Xylene O	10.2		ug/L	10.00		102	70-130	0.7	25	
Xylene P,M	20.2		ug/L	20.00		101	70-130	0.5	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0266*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0234*		mg/L	*0.02500*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0274*		mg/L	*0.02500*		*110*	*70-130*			
Surrogate: Toluene-d8	*0.0234*		mg/L	*0.02500*		*94*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

Notes and Definitions

U	Analyte included in the analysis, but not detected
C+	Continuing Calibration recovery is above upper control limit (C+).
B+	Blank Spike recovery is above upper control limit (B+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406371

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: Client

ESS Project ID: 14060371
Date Project Due: 6/24/14
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	No
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: **1.5**		16. Are ESS labels on correct containers?	Yes|No
Iced With: **Ice**		17. Were samples received intact?	Yes|No
6. Was COC included with samples?	Yes	ESS Sample IDs:	
7. Was COC signed and dated by client?	Yes	Sub Lab:	
8. Does the COC match the sample	Yes	Analysis:	
9. Is COC complete and correct?	Yes	TAT:	

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?:_____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	40 ml - VOA	3	HCL
2	Yes	40 ml - VOA	3	HCL
3	Yes	40 ml - VOA	3	HCL
4	Yes	40 ml - VOA	3	HCL
5	Yes	40 ml - VOA	3	HCL
6	Yes	40 ml - VOA	3	HCL
7	Yes	40 ml - VOA	3	HCL
8	Yes	40 ml - VOA	1	HCL

Completed By: _____ Date/Time: 6/17/14 1643
Reviewed By: _____ Date/Time: 6/18/14 1705

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page 1 of 1

Turn Time (5) Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
MA (RI) CT NH NJ NY ME Other _____

Is this project for any of the following:
MA-MCP Navy USACE Other _____

Reporting Limits

ESS LAB PROJECT ID: 1406371

Electronic Deliverable Yes ✓ No ___
Format: Excel ___ Access ___ PDF ✓ Other _____

Co. Name	Project #	Project Name (20 Char. or less)
GZA-GeoEnvironmental	33554-00	642 Allens Ave

Contact Person	Address
Meg Kilpatrick	530 Broadway

City	State	Zip	PO#
Providence	RI	02909	

Telephone #	Fax #	Email Address
401-421-4140		mkilpatrick@gza.com sophia.oster@gza.com

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	VOC's 8260	Write Required Analysis
X 8	6/17/14	0900		X	W	TRIPBLANK 061714	2	1	V	X	
21		11:15		X	GW	GZ-307S	2	3	V	X	
32		12:46				GZ-309D	2	3	V	X	
3		12:40				VHB-1	2	3	V	X	
4		15:20				GZ-308S	2	3	V	X	
5		14:16				GZ-320D	2	3	V	X	
6		1458				VHB-10	2	3	V	X	
7		1548				VHB-8R	2	3	V	X	

MB 6/17/14 1435

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present X Yes ___ No
Seals Intact ___ Yes ___ No NA: X
Cooler Temp: 1.5 iC MB 6/17/14

Internal Use Only
[ ] Pickup
[ ] Technicians _____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by: Matt Beggan + Ray Taylor

Comments:
Apply Natural GRID Rules

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	6/17/14 4:25		6/17/14 1625				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A

CERTIFICATE OF ANALYSIS

Meg Kilpatrick
GZA GeoEnvironmental, Inc.
530 Broadway
Providence, RI 02909

RE: 642 Allens Ave (03.0033554)
ESS Laboratory Work Order Number: 1406415

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 5:42 pm, Jun 26, 2014

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

SAMPLE RECEIPT

The following samples were received on June 18, 2014 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1406415-01	RCA-1	Ground Water	8260B
1406415-02	GZ-303S	Ground Water	8260B
1406415-03	GZ-303D	Ground Water	8260B
1406415-04	RCA-12R	Ground Water	8260B
1406415-05	GZ-302D	Ground Water	8260B
1406415-06	GZ-301D	Ground Water	8260B
1406415-07	RCA-3	Ground Water	8260B
1406415-08	GZ-313D	Ground Water	8260B
1406415-09	GZ-312S	Ground Water	8260B
1406415-10	GZ-304D	Ground Water	8260B
1406415-11	GZ-302S	Ground Water	8260B
1406415-12	GZ-305S	Ground Water	8260B
1406415-13	GZ-306	Ground Water	8260B
1406415-14	GZ-311D	Ground Water	8260B
1406415-15	GZ-312D	Ground Water	8260B
1406415-16	VHB-3	Ground Water	8260B
1406415-17	BD-1	Ground Water	8260B
1406415-18	Trip Blank 61814	Aqueous	8260B

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

PROJECT NARRATIVE

8260B Volatile Organic Compounds

CF41930-BS1 **Blank Spike recovery is above upper control limit (B+).**
Bromomethane (153% @ 70-130%)

CF41930-BSD1 **Blank Spike recovery is above upper control limit (B+).**
1,1-Dichloropropene (132% @ 70-130%), Acetone (135% @ 70-130%), Bromomethane (154% @ 70-130%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 06/18/14 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 19:16	CXF0261	CF41930
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
2-Butanone	ND (0.0100)		8260B		1	06/19/14 19:16	CXF0261	CF41930
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 19:16	CXF0261	CF41930
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Acetone	ND (0.0100)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Benzene	**0.0033** (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 19:16	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 06/18/14 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Bromoform	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Bromomethane	ND (0.0020)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Chloroethane	ND (0.0020)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Chloroform	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Chloromethane	ND (0.0020)		8260B		1	06/19/14 19:16	CXF0261	CF41930
cis-1,2-Dichloroethene	**0.0127** (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Ethylbenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Isopropylbenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Naphthalene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
n-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
n-Propylbenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
sec-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Styrene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Tetrachloroethene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 06/18/14 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Toluene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Trichloroethene	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Vinyl Chloride	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Xylene O	ND (0.0010)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 19:16	CXF0261	CF41930
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 19:16		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 19:16		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*109 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*78 %*		*70-130*
Surrogate: Dibromofluoromethane	*109 %*		*70-130*
Surrogate: Toluene-d8	*93 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-303S
Date Sampled: 06/18/14 10:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 19:41	CXF0261	CF41930
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
2-Butanone	ND (0.0100)		8260B		1	06/19/14 19:41	CXF0261	CF41930
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 19:41	CXF0261	CF41930
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Acetone	ND (0.0100)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Benzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 19:41	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-303S
Date Sampled: 06/18/14 10:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Bromoform	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Bromomethane	ND (0.0020)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Chloroethane	ND (0.0020)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Chloroform	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Chloromethane	ND (0.0020)		8260B		1	06/19/14 19:41	CXF0261	CF41930
cis-1,2-Dichloroethene	**0.0210** (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Ethylbenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Isopropylbenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Naphthalene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
n-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
n-Propylbenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
sec-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Styrene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Tetrachloroethene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-303S
Date Sampled: 06/18/14 10:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Toluene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Trichloroethene	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Vinyl Chloride	**0.0070** (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Xylene O	ND (0.0010)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 19:41	CXF0261	CF41930
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 19:41		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 19:41		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*113 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*79 %*		*70-130*
Surrogate: Dibromofluoromethane	*112 %*		*70-130*
Surrogate: Toluene-d8	*87 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-303D
Date Sampled: 06/18/14 10:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 20:07	CXF0261	CF41930
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
2-Butanone	ND (0.0100)		8260B		1	06/19/14 20:07	CXF0261	CF41930
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 20:07	CXF0261	CF41930
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Acetone	ND (0.0100)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Benzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 20:07	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-303D
Date Sampled: 06/18/14 10:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Bromoform	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Bromomethane	ND (0.0020)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Chloroethane	ND (0.0020)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Chloroform	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Chloromethane	ND (0.0020)		8260B		1	06/19/14 20:07	CXF0261	CF41930
cis-1,2-Dichloroethene	**0.0040** (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Ethylbenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Isopropylbenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Naphthalene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
n-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
n-Propylbenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
sec-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Styrene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Tetrachloroethene	**0.0277** (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-303D
Date Sampled: 06/18/14 10:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Toluene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Trichloroethene	**0.0125** (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Vinyl Chloride	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Xylene O	ND (0.0010)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 20:07	CXF0261	CF41930
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 20:07		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 20:07		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*113 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*78 %*		*70-130*
Surrogate: Dibromofluoromethane	*113 %*		*70-130*
Surrogate: Toluene-d8	*87 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 06/18/14 09:06
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 20:32	CXF0261	CF41930
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
2-Butanone	ND (0.0100)		8260B		1	06/19/14 20:32	CXF0261	CF41930
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 20:32	CXF0261	CF41930
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Acetone	ND (0.0100)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Benzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 20:32	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 06/18/14 09:06
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Bromoform	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Bromomethane	ND (0.0020)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Chloroethane	ND (0.0020)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Chloroform	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Chloromethane	ND (0.0020)		8260B		1	06/19/14 20:32	CXF0261	CF41930
cis-1,2-Dichloroethene	**0.0127** (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Ethylbenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Isopropylbenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Naphthalene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
n-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
n-Propylbenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
sec-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Styrene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Tetrachloroethene	**0.0010** (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 06/18/14 09:06
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Toluene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Trichloroethene	**0.0066** (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Vinyl Chloride	**0.0022** (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Xylene O	ND (0.0010)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 20:32	CXF0261	CF41930
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 20:32		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 20:32		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*109 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*75 %*		*70-130*
Surrogate: Dibromofluoromethane	*110 %*		*70-130*
Surrogate: Toluene-d8	*87 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-302D
Date Sampled: 06/18/14 09:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 20:58	CXF0261	CF41930
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
2-Butanone	ND (0.0100)		8260B		1	06/19/14 20:58	CXF0261	CF41930
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 20:58	CXF0261	CF41930
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Acetone	ND (0.0100)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Benzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 20:58	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-302D
Date Sampled: 06/18/14 09:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Bromoform	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Bromomethane	ND (0.0020)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Chloroethane	ND (0.0020)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Chloroform	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Chloromethane	ND (0.0020)		8260B		1	06/19/14 20:58	CXF0261	CF41930
cis-1,2-Dichloroethene	**0.0057** (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Ethylbenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Isopropylbenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Naphthalene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
n-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
n-Propylbenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
sec-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Styrene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Tetrachloroethene	**0.0465** (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-302D
Date Sampled: 06/18/14 09:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Toluene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Trichloroethene	**0.0197** (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Vinyl Chloride	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Xylene O	ND (0.0010)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 20:58	CXF0261	CF41930
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 20:58		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 20:58		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*113 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*76 %*		*70-130*
Surrogate: Dibromofluoromethane	*113 %*		*70-130*
Surrogate: Toluene-d8	*85 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-301D
Date Sampled: 06/18/14 11:08
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 21:23	CXF0261	CF41930
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
2-Butanone	ND (0.0100)		8260B		1	06/19/14 21:23	CXF0261	CF41930
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 21:23	CXF0261	CF41930
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Acetone	ND (0.0100)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Benzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 21:23	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-301D
Date Sampled: 06/18/14 11:08
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Bromoform	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Bromomethane	ND (0.0020)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Chloroethane	ND (0.0020)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Chloroform	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Chloromethane	ND (0.0020)		8260B		1	06/19/14 21:23	CXF0261	CF41930
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Ethylbenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Isopropylbenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Naphthalene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
n-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
n-Propylbenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
sec-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Styrene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Tetrachloroethene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-301D
Date Sampled: 06/18/14 11:08
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Toluene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Trichloroethene	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Vinyl Chloride	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Xylene O	ND (0.0010)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 21:23	CXF0261	CF41930
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 21:23		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 21:23		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*111 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*79 %*		*70-130*
Surrogate: Dibromofluoromethane	*113 %*		*70-130*
Surrogate: Toluene-d8	*88 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-3
Date Sampled: 06/18/14 13:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,2,4-Trimethylbenzene	**0.0760** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,3,5-Trimethylbenzene	**0.0118** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/24/14 18:00	CXF0318	CF42440
1-Chlorohexane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
2-Butanone	ND (0.0100)		8260B		1	06/24/14 18:00	CXF0318	CF42440
2-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
2-Hexanone	ND (0.0100)		8260B		1	06/24/14 18:00	CXF0318	CF42440
4-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
4-Isopropyltoluene	**0.0039** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Acetone	ND (0.0100)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Benzene	**0.0051** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Bromobenzene	ND (0.0020)		8260B		1	06/24/14 18:00	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-3
Date Sampled: 06/18/14 13:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Bromodichloromethane	ND (0.0006)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Bromoform	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Bromomethane	ND (0.0020)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Carbon Disulfide	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Chlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Chloroethane	ND (0.0020)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Chloroform	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Chloromethane	ND (0.0020)		8260B		1	06/24/14 18:00	CXF0318	CF42440
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Dibromochloromethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Dibromomethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Diethyl Ether	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Di-isopropyl ether	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Ethylbenzene	**0.0206** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Hexachloroethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Isopropylbenzene	**0.0123** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Methylene Chloride	ND (0.0020)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Naphthalene	**0.461** (0.0100)		8260B		10	06/26/14 12:36	CXF0318	CF42440
n-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
n-Propylbenzene	**0.0075** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
sec-Butylbenzene	**0.0018** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Styrene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
tert-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Tetrachloroethene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-3
Date Sampled: 06/18/14 13:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Toluene	**0.0024** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Trichloroethene	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Vinyl Acetate	ND (0.0050)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Vinyl Chloride	ND (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Xylene O	**0.0118** (0.0010)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Xylene P,M	**0.0104** (0.0020)		8260B		1	06/24/14 18:00	CXF0318	CF42440
Xylenes (Total)	**0.0222** (0.0020)		8260B		1	06/24/14 18:00		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/24/14 18:00		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*111 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*101 %*		*70-130*
Surrogate: Dibromofluoromethane	*112 %*		*70-130*
Surrogate: Toluene-d8	*102 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-313D
Date Sampled: 06/18/14 14:07
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,2,4-Trimethylbenzene	**0.0565** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,3,5-Trimethylbenzene	**0.0112** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/24/14 17:35	CXF0318	CF42440
1-Chlorohexane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
2-Butanone	ND (0.0100)		8260B		1	06/24/14 17:35	CXF0318	CF42440
2-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
2-Hexanone	ND (0.0100)		8260B		1	06/24/14 17:35	CXF0318	CF42440
4-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
4-Isopropyltoluene	**0.0024** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Acetone	ND (0.0100)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Benzene	**0.0433** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Bromobenzene	ND (0.0020)		8260B		1	06/24/14 17:35	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-313D
Date Sampled: 06/18/14 14:07
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Bromodichloromethane	ND (0.0006)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Bromoform	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Bromomethane	ND (0.0020)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Carbon Disulfide	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Chlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Chloroethane	ND (0.0020)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Chloroform	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Chloromethane	ND (0.0020)		8260B		1	06/24/14 17:35	CXF0318	CF42440
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Dibromochloromethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Dibromomethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Diethyl Ether	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Di-isopropyl ether	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Ethylbenzene	**0.0147** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Hexachloroethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Isopropylbenzene	**0.0111** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Methyl tert-Butyl Ether	**0.0030** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Methylene Chloride	ND (0.0020)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Naphthalene	**0.284** (0.0100)		8260B		10	06/26/14 12:09	CXF0318	CF42440
n-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
n-Propylbenzene	**0.0035** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
sec-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Styrene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
tert-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Tetrachloroethene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-313D
Date Sampled: 06/18/14 14:07
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Toluene	**0.0018** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Trichloroethene	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Vinyl Acetate	ND (0.0050)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Vinyl Chloride	ND (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Xylene O	**0.0153** (0.0010)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Xylene P,M	**0.0065** (0.0020)		8260B		1	06/24/14 17:35	CXF0318	CF42440
Xylenes (Total)	**0.0218** (0.0020)		8260B		1	06/24/14 17:35		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/24/14 17:35		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*111 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*100 %*		*70-130*
Surrogate: Dibromofluoromethane	*109 %*		*70-130*
Surrogate: Toluene-d8	*104 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-312S
Date Sampled: 06/18/14 15:17
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/24/14 15:02	CXF0318	CF42440
1-Chlorohexane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
2-Butanone	ND (0.0100)		8260B		1	06/24/14 15:02	CXF0318	CF42440
2-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
2-Hexanone	ND (0.0100)		8260B		1	06/24/14 15:02	CXF0318	CF42440
4-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Acetone	ND (0.0100)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Benzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Bromobenzene	ND (0.0020)		8260B		1	06/24/14 15:02	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-312S
Date Sampled: 06/18/14 15:17
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Bromodichloromethane	ND (0.0006)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Bromoform	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Bromomethane	ND (0.0020)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Carbon Disulfide	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Chlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Chloroethane	ND (0.0020)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Chloroform	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Chloromethane	ND (0.0020)		8260B		1	06/24/14 15:02	CXF0318	CF42440
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Dibromochloromethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Dibromomethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Diethyl Ether	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Di-isopropyl ether	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Ethylbenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Hexachloroethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Isopropylbenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Methylene Chloride	ND (0.0020)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Naphthalene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
n-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
n-Propylbenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
sec-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Styrene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
tert-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Tetrachloroethene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-312S
Date Sampled: 06/18/14 15:17
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Toluene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Trichloroethene	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Vinyl Acetate	ND (0.0050)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Vinyl Chloride	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Xylene O	ND (0.0010)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Xylene P,M	ND (0.0020)		8260B		1	06/24/14 15:02	CXF0318	CF42440
Xylenes (Total)	ND (0.0020)		8260B		1	06/24/14 15:02		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/24/14 15:02		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*106 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*106 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 06/18/14 09:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/24/14 15:28	CXF0318	CF42440
1-Chlorohexane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
2-Butanone	ND (0.0100)		8260B		1	06/24/14 15:28	CXF0318	CF42440
2-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
2-Hexanone	ND (0.0100)		8260B		1	06/24/14 15:28	CXF0318	CF42440
4-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Acetone	ND (0.0100)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Benzene	**0.0053** (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Bromobenzene	ND (0.0020)		8260B		1	06/24/14 15:28	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 06/18/14 09:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Bromodichloromethane	ND (0.0006)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Bromoform	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Bromomethane	ND (0.0020)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Carbon Disulfide	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Chlorobenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Chloroethane	ND (0.0020)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Chloroform	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Chloromethane	ND (0.0020)		8260B		1	06/24/14 15:28	CXF0318	CF42440
cis-1,2-Dichloroethene	**0.0160** (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Dibromochloromethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Dibromomethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Diethyl Ether	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Di-isopropyl ether	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Ethylbenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Hexachloroethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Isopropylbenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Methylene Chloride	ND (0.0020)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Naphthalene	**0.0460** (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
n-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
n-Propylbenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
sec-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Styrene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
tert-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Tetrachloroethene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 06/18/14 09:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Toluene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Trichloroethene	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Vinyl Acetate	ND (0.0050)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Vinyl Chloride	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Xylene O	ND (0.0010)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Xylene P,M	ND (0.0020)		8260B		1	06/24/14 15:28	CXF0318	CF42440
Xylenes (Total)	ND (0.0020)		8260B		1	06/24/14 15:28		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/24/14 15:28		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*106 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*105 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-302S
Date Sampled: 06/18/14 11:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/25/14 15:56	CXF0342	CF42544
1-Chlorohexane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
2-Butanone	ND (0.0100)		8260B		1	06/25/14 15:56	CXF0342	CF42544
2-Chlorotoluene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
2-Hexanone	ND (0.0100)		8260B		1	06/25/14 15:56	CXF0342	CF42544
4-Chlorotoluene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Acetone	ND (0.0100)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Benzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Bromobenzene	ND (0.0020)		8260B		1	06/25/14 15:56	CXF0342	CF42544

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-302S
Date Sampled: 06/18/14 11:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Bromodichloromethane	ND (0.0006)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Bromoform	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Bromomethane	ND (0.0020)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Carbon Disulfide	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Chlorobenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Chloroethane	ND (0.0020)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Chloroform	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Chloromethane	ND (0.0020)		8260B		1	06/25/14 15:56	CXF0342	CF42544
cis-1,2-Dichloroethene	**0.0172** (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Dibromochloromethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Dibromomethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Diethyl Ether	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Di-isopropyl ether	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Ethylbenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Hexachloroethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Isopropylbenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Methylene Chloride	ND (0.0020)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Naphthalene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
n-Butylbenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
n-Propylbenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
sec-Butylbenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Styrene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
tert-Butylbenzene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Tetrachloroethene	**0.0289** (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-302S
Date Sampled: 06/18/14 11:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Toluene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Trichloroethene	**0.0128** (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Vinyl Acetate	ND (0.0050)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Vinyl Chloride	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Xylene O	ND (0.0010)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Xylene P,M	ND (0.0020)		8260B		1	06/25/14 15:56	CXF0342	CF42544
Xylenes (Total)	ND (0.0020)		8260B		1	06/25/14 15:56		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/25/14 15:56		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*90 %*		*70-130*
Surrogate: Dibromofluoromethane	*101 %*		*70-130*
Surrogate: Toluene-d8	*91 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-305S
Date Sampled: 06/18/14 09:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/25/14 16:50	CXF0342	CF42544
1-Chlorohexane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
2-Butanone	ND (0.0100)		8260B		1	06/25/14 16:50	CXF0342	CF42544
2-Chlorotoluene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
2-Hexanone	ND (0.0100)		8260B		1	06/25/14 16:50	CXF0342	CF42544
4-Chlorotoluene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Acetone	ND (0.0100)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Benzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Bromobenzene	ND (0.0020)		8260B		1	06/25/14 16:50	CXF0342	CF42544

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-305S
Date Sampled: 06/18/14 09:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Bromodichloromethane	ND (0.0006)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Bromoform	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Bromomethane	ND (0.0020)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Carbon Disulfide	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Chlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Chloroethane	ND (0.0020)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Chloroform	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Chloromethane	ND (0.0020)		8260B		1	06/25/14 16:50	CXF0342	CF42544
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Dibromochloromethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Dibromomethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Diethyl Ether	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Di-isopropyl ether	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Ethylbenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Hexachloroethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Isopropylbenzene	**0.0012** (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Methylene Chloride	ND (0.0020)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Naphthalene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
n-Butylbenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
n-Propylbenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
sec-Butylbenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Styrene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
tert-Butylbenzene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Tetrachloroethene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-305S
Date Sampled: 06/18/14 09:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Toluene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Trichloroethene	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Vinyl Acetate	ND (0.0050)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Vinyl Chloride	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Xylene O	ND (0.0010)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Xylene P,M	ND (0.0020)		8260B		1	06/25/14 16:50	CXF0342	CF42544
Xylenes (Total)	ND (0.0020)		8260B		1	06/25/14 16:50		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/25/14 16:50		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*98 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*98 %*		*70-130*
Surrogate: Toluene-d8	*91 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-306
Date Sampled: 06/18/14 08:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/24/14 18:51	CXF0318	CF42440
1-Chlorohexane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
2-Butanone	ND (0.0100)		8260B		1	06/24/14 18:51	CXF0318	CF42440
2-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
2-Hexanone	ND (0.0100)		8260B		1	06/24/14 18:51	CXF0318	CF42440
4-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Acetone	ND (0.0100)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Benzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Bromobenzene	ND (0.0020)		8260B		1	06/24/14 18:51	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-306
Date Sampled: 06/18/14 08:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Bromodichloromethane	ND (0.0006)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Bromoform	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Bromomethane	ND (0.0020)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Carbon Disulfide	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Chlorobenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Chloroethane	ND (0.0020)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Chloroform	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Chloromethane	ND (0.0020)		8260B		1	06/24/14 18:51	CXF0318	CF42440
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Dibromochloromethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Dibromomethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Diethyl Ether	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Di-isopropyl ether	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Ethylbenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Hexachloroethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Isopropylbenzene	**0.0074** (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Methylene Chloride	ND (0.0020)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Naphthalene	**0.0093** (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
n-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
n-Propylbenzene	**0.0024** (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
sec-Butylbenzene	**0.0051** (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Styrene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
tert-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Tetrachloroethene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-306
Date Sampled: 06/18/14 08:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Toluene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Trichloroethene	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Vinyl Acetate	ND (0.0050)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Vinyl Chloride	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Xylene O	ND (0.0010)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Xylene P,M	ND (0.0020)		8260B		1	06/24/14 18:51	CXF0318	CF42440
Xylenes (Total)	ND (0.0020)		8260B		1	06/24/14 18:51		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/24/14 18:51		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*109 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*100 %*		*70-130*
Surrogate: Dibromofluoromethane	*108 %*		*70-130*
Surrogate: Toluene-d8	*103 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-311D
Date Sampled: 06/18/14 15:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-14
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,2,4-Trimethylbenzene	**0.0215** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,3,5-Trimethylbenzene	**0.0082** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/24/14 19:16	CXF0318	CF42440
1-Chlorohexane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
2-Butanone	ND (0.0100)		8260B		1	06/24/14 19:16	CXF0318	CF42440
2-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
2-Hexanone	ND (0.0100)		8260B		1	06/24/14 19:16	CXF0318	CF42440
4-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
4-Isopropyltoluene	**0.0012** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Acetone	**0.0490** (0.0100)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Benzene	**0.0216** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Bromobenzene	ND (0.0020)		8260B		1	06/24/14 19:16	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-311D
Date Sampled: 06/18/14 15:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-14
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Bromodichloromethane	ND (0.0006)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Bromoform	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Bromomethane	ND (0.0020)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Carbon Disulfide	**0.0590** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Chlorobenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Chloroethane	ND (0.0020)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Chloroform	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Chloromethane	ND (0.0020)		8260B		1	06/24/14 19:16	CXF0318	CF42440
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Dibromochloromethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Dibromomethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Diethyl Ether	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Di-isopropyl ether	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Ethylbenzene	**0.0044** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Hexachloroethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Isopropylbenzene	**0.0011** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Methylene Chloride	ND (0.0020)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Naphthalene	**1.16** (0.100)		8260B		100	06/26/14 13:03	CXF0318	CF42440
n-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
n-Propylbenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
sec-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Styrene	**0.0044** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
tert-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Tetrachloroethene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-311D
Date Sampled: 06/18/14 15:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-14
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Toluene	**0.0068** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Trichloroethene	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Vinyl Acetate	ND (0.0050)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Vinyl Chloride	ND (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Xylene O	**0.0083** (0.0010)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Xylene P,M	**0.0121** (0.0020)		8260B		1	06/24/14 19:16	CXF0318	CF42440
Xylenes (Total)	**0.0204** (0.0020)		8260B		1	06/24/14 19:16		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/24/14 19:16		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*110 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*100 %*		*70-130*
Surrogate: Dibromofluoromethane	*113 %*		*70-130*
Surrogate: Toluene-d8	*103 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-312D
Date Sampled: 06/18/14 15:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-15
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,2,4-Trimethylbenzene	**0.0018** (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/24/14 16:19	CXF0318	CF42440
1-Chlorohexane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
2-Butanone	ND (0.0100)		8260B		1	06/24/14 16:19	CXF0318	CF42440
2-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
2-Hexanone	ND (0.0100)		8260B		1	06/24/14 16:19	CXF0318	CF42440
4-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Acetone	ND (0.0100)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Benzene	**0.0017** (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Bromobenzene	ND (0.0020)		8260B		1	06/24/14 16:19	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-312D
Date Sampled: 06/18/14 15:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-15
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Bromodichloromethane	ND (0.0006)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Bromoform	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Bromomethane	ND (0.0020)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Carbon Disulfide	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Chlorobenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Chloroethane	ND (0.0020)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Chloroform	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Chloromethane	ND (0.0020)		8260B		1	06/24/14 16:19	CXF0318	CF42440
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Dibromochloromethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Dibromomethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Diethyl Ether	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Di-isopropyl ether	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Ethylbenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Hexachloroethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Isopropylbenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Methyl tert-Butyl Ether	**0.0119** (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Methylene Chloride	ND (0.0020)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Naphthalene	**0.0107** (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
n-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
n-Propylbenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
sec-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Styrene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
tert-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Tetrachloroethene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-312D
Date Sampled: 06/18/14 15:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-15
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Toluene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Trichloroethene	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Vinyl Acetate	ND (0.0050)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Vinyl Chloride	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Xylene O	ND (0.0010)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Xylene P,M	ND (0.0020)		8260B		1	06/24/14 16:19	CXF0318	CF42440
Xylenes (Total)	ND (0.0020)		8260B		1	06/24/14 16:19		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/24/14 16:19		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*107 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*98 %*		*70-130*
Surrogate: Dibromofluoromethane	*104 %*		*70-130*
Surrogate: Toluene-d8	*102 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-3
Date Sampled: 06/18/14 14:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-16
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/25/14 16:24	CXF0342	CF42544
1-Chlorohexane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
2-Butanone	ND (0.0100)		8260B		1	06/25/14 16:24	CXF0342	CF42544
2-Chlorotoluene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
2-Hexanone	ND (0.0100)		8260B		1	06/25/14 16:24	CXF0342	CF42544
4-Chlorotoluene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Acetone	ND (0.0100)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Benzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Bromobenzene	ND (0.0020)		8260B		1	06/25/14 16:24	CXF0342	CF42544

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-3
Date Sampled: 06/18/14 14:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-16
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Bromodichloromethane	ND (0.0006)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Bromoform	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Bromomethane	ND (0.0020)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Carbon Disulfide	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Chlorobenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Chloroethane	ND (0.0020)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Chloroform	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Chloromethane	ND (0.0020)		8260B		1	06/25/14 16:24	CXF0342	CF42544
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Dibromochloromethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Dibromomethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Diethyl Ether	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Di-isopropyl ether	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Ethylbenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Hexachloroethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Isopropylbenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Methylene Chloride	ND (0.0020)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Naphthalene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
n-Butylbenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
n-Propylbenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
sec-Butylbenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Styrene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
tert-Butylbenzene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Tetrachloroethene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-3
Date Sampled: 06/18/14 14:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-16
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Toluene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Trichloroethene	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Vinyl Acetate	ND (0.0050)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Vinyl Chloride	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Xylene O	ND (0.0010)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Xylene P,M	ND (0.0020)		8260B		1	06/25/14 16:24	CXF0342	CF42544
Xylenes (Total)	ND (0.0020)		8260B		1	06/25/14 16:24		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/25/14 16:24		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*96 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*91 %*		*70-130*
Surrogate: Dibromofluoromethane	*99 %*		*70-130*
Surrogate: Toluene-d8	*93 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD-1
Date Sampled: 06/18/14 07:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-17
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/24/14 17:10	CXF0318	CF42440
1-Chlorohexane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
2-Butanone	ND (0.0100)		8260B		1	06/24/14 17:10	CXF0318	CF42440
2-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
2-Hexanone	ND (0.0100)		8260B		1	06/24/14 17:10	CXF0318	CF42440
4-Chlorotoluene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Acetone	ND (0.0100)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Benzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Bromobenzene	ND (0.0020)		8260B		1	06/24/14 17:10	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD-1
Date Sampled: 06/18/14 07:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-17
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Bromodichloromethane	ND (0.0006)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Bromoform	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Bromomethane	ND (0.0020)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Carbon Disulfide	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Chlorobenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Chloroethane	ND (0.0020)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Chloroform	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Chloromethane	ND (0.0020)		8260B		1	06/24/14 17:10	CXF0318	CF42440
cis-1,2-Dichloroethene	**0.0232** (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Dibromochloromethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Dibromomethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Diethyl Ether	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Di-isopropyl ether	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Ethylbenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Hexachloroethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Isopropylbenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Methylene Chloride	ND (0.0020)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Naphthalene	**0.0011** (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
n-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
n-Propylbenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
sec-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Styrene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
tert-Butylbenzene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Tetrachloroethene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD-1
Date Sampled: 06/18/14 07:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-17
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Toluene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Trichloroethene	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Vinyl Acetate	ND (0.0050)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Vinyl Chloride	**0.0066** (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Xylene O	ND (0.0010)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Xylene P,M	ND (0.0020)		8260B		1	06/24/14 17:10	CXF0318	CF42440
Xylenes (Total)	ND (0.0020)		8260B		1	06/24/14 17:10		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/24/14 17:10		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*109 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*108 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank 61814
Date Sampled: 06/18/14 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-18
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/19/14 17:08	CXF0261	CF41930
1-Chlorohexane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
2-Butanone	ND (0.0100)		8260B		1	06/19/14 17:08	CXF0261	CF41930
2-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
2-Hexanone	ND (0.0100)		8260B		1	06/19/14 17:08	CXF0261	CF41930
4-Chlorotoluene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Acetone	ND (0.0100)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Benzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Bromobenzene	ND (0.0020)		8260B		1	06/19/14 17:08	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank 61814
Date Sampled: 06/18/14 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-18
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Bromodichloromethane	ND (0.0006)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Bromoform	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Bromomethane	ND (0.0020)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Carbon Disulfide	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Chlorobenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Chloroethane	ND (0.0020)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Chloroform	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Chloromethane	ND (0.0020)		8260B		1	06/19/14 17:08	CXF0261	CF41930
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Dibromochloromethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Dibromomethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Diethyl Ether	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Di-isopropyl ether	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Ethylbenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Hexachloroethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Isopropylbenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Methylene Chloride	ND (0.0020)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Naphthalene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
n-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
n-Propylbenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
sec-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Styrene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
tert-Butylbenzene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Tetrachloroethene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank 61814
Date Sampled: 06/18/14 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406415
ESS Laboratory Sample ID: 1406415-18
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Toluene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Trichloroethene	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Vinyl Acetate	ND (0.0050)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Vinyl Chloride	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Xylene O	ND (0.0010)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Xylene P,M	ND (0.0020)		8260B		1	06/19/14 17:08	CXF0261	CF41930
Xylenes (Total)	ND (0.0020)		8260B		1	06/19/14 17:08		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/19/14 17:08		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*129 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*73 %*		*70-130*
Surrogate: Dibromofluoromethane	*125 %*		*70-130*
Surrogate: Toluene-d8	*86 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41930 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41930 - 5030B										
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0306*		mg/L	*0.02500*		*122*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0180*		mg/L	*0.02500*		*72*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0305*		mg/L	*0.02500*		*122*	*70-130*			
Surrogate: Toluene-d8	*0.0213*		mg/L	*0.02500*		*85*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	10.2		ug/L	10.00		102	70-130			
1,1,1-Trichloroethane	11.8		ug/L	10.00		118	70-130			
1,1,2,2-Tetrachloroethane	9.68		ug/L	10.00		97	70-130			
1,1,2-Trichloroethane	11.7		ug/L	10.00		117	70-130			
1,1-Dichloroethane	11.9		ug/L	10.00		119	70-130			
1,1-Dichloroethene	11.3		ug/L	10.00		113	70-130			
1,1-Dichloropropene	12.5		ug/L	10.00		125	70-130			
1,2,3-Trichlorobenzene	9.05		ug/L	10.00		90	70-130			
1,2,3-Trichloropropane	9.25		ug/L	10.00		92	70-130			
1,2,4-Trichlorobenzene	8.42		ug/L	10.00		84	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41930 - 5030B										
1,2,4-Trimethylbenzene	9.72		ug/L	10.00		97	70-130			
1,2-Dibromo-3-Chloropropane	8.84		ug/L	10.00		88	70-130			
1,2-Dibromoethane	10.2		ug/L	10.00		102	70-130			
1,2-Dichlorobenzene	9.73		ug/L	10.00		97	70-130			
1,2-Dichloroethane	12.3		ug/L	10.00		123	70-130			
1,2-Dichloropropane	11.6		ug/L	10.00		116	70-130			
1,3,5-Trimethylbenzene	10.5		ug/L	10.00		105	70-130			
1,3-Dichlorobenzene	10.1		ug/L	10.00		101	70-130			
1,3-Dichloropropane	10.5		ug/L	10.00		105	70-130			
1,4-Dichlorobenzene	10.0		ug/L	10.00		100	70-130			
1,4-Dioxane - Screen	201		ug/L	200.0		100	0-332			
1-Chlorohexane	8.36		ug/L	10.00		84	70-130			
2,2-Dichloropropane	11.3		ug/L	10.00		113	70-130			
2-Butanone	60.2		ug/L	50.00		120	70-130			
2-Chlorotoluene	10.6		ug/L	10.00		106	70-130			
2-Hexanone	51.0		ug/L	50.00		102	70-130			
4-Chlorotoluene	10.7		ug/L	10.00		107	70-130			
4-Isopropyltoluene	9.32		ug/L	10.00		93	70-130			
4-Methyl-2-Pentanone	58.0		ug/L	50.00		116	70-130			
Acetone	63.6		ug/L	50.00		127	70-130			
Benzene	12.2		ug/L	10.00		122	70-130			
Bromobenzene	9.82		ug/L	10.00		98	70-130			
Bromochloromethane	12.5		ug/L	10.00		125	70-130			
Bromodichloromethane	11.9		ug/L	10.00		119	70-130			
Bromoform	9.78		ug/L	10.00		98	70-130			
Bromomethane	15.3		ug/L	10.00		153	70-130			B+
Carbon Disulfide	11.7		ug/L	10.00		117	70-130			
Carbon Tetrachloride	12.0		ug/L	10.00		120	70-130			
Chlorobenzene	10.4		ug/L	10.00		104	70-130			
Chloroethane	11.5		ug/L	10.00		115	70-130			
Chloroform	12.3		ug/L	10.00		123	70-130			
Chloromethane	11.7		ug/L	10.00		117	70-130			
cis-1,2-Dichloroethene	12.4		ug/L	10.00		124	70-130			
cis-1,3-Dichloropropene	11.1		ug/L	10.00		111	70-130			
Dibromochloromethane	10.4		ug/L	10.00		104	70-130			
Dibromomethane	12.1		ug/L	10.00		121	70-130			
Dichlorodifluoromethane	10.8		ug/L	10.00		108	70-130			
Diethyl Ether	11.8		ug/L	10.00		118	70-130			
Di-isopropyl ether	11.1		ug/L	10.00		111	70-130			
Ethyl tertiary-butyl ether	9.40		ug/L	10.00		94	70-130			
Ethylbenzene	9.82		ug/L	10.00		98	70-130			
Hexachlorobutadiene	9.04		ug/L	10.00		90	70-130			
Hexachloroethane	8.95		ug/L	10.00		90	70-130			
Isopropylbenzene	9.90		ug/L	10.00		99	70-130			
Methyl tert-Butyl Ether	9.76		ug/L	10.00		98	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41930 - 5030B										
Methylene Chloride	12.0		ug/L	10.00		120	70-130			
Naphthalene	7.40		ug/L	10.00		74	70-130			
n-Butylbenzene	8.99		ug/L	10.00		90	70-130			
n-Propylbenzene	9.97		ug/L	10.00		100	70-130			
sec-Butylbenzene	10.3		ug/L	10.00		103	70-130			
Styrene	8.61		ug/L	10.00		86	70-130			
tert-Butylbenzene	9.77		ug/L	10.00		98	70-130			
Tertiary-amyl methyl ether	8.32		ug/L	10.00		83	70-130			
Tetrachloroethene	9.63		ug/L	10.00		96	70-130			
Tetrahydrofuran	11.4		ug/L	10.00		114	70-130			
Toluene	12.5		ug/L	10.00		125	70-130			
trans-1,2-Dichloroethene	11.6		ug/L	10.00		116	70-130			
trans-1,3-Dichloropropene	9.98		ug/L	10.00		100	70-130			
Trichloroethene	11.5		ug/L	10.00		115	70-130			
Trichlorofluoromethane	10.9		ug/L	10.00		109	70-130			
Vinyl Acetate	9.62		ug/L	10.00		96	70-130			
Vinyl Chloride	11.8		ug/L	10.00		118	70-130			
Xylene O	11.0		ug/L	10.00		110	70-130			
Xylene P,M	21.2		ug/L	20.00		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0253*		mg/L	*0.02500*		*101*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0202*		mg/L	*0.02500*		*81*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0270*		mg/L	*0.02500*		*108*	*70-130*			
Surrogate: Toluene-d8	*0.0212*		mg/L	*0.02500*		*85*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.2		ug/L	10.00		102	70-130	0.4	25	
1,1,1-Trichloroethane	12.1		ug/L	10.00		121	70-130	3	25	
1,1,2,2-Tetrachloroethane	9.94		ug/L	10.00		99	70-130	3	25	
1,1,2-Trichloroethane	12.4		ug/L	10.00		124	70-130	6	25	
1,1-Dichloroethane	12.2		ug/L	10.00		122	70-130	3	25	
1,1-Dichloroethene	12.1		ug/L	10.00		121	70-130	7	25	
1,1-Dichloropropene	13.2		ug/L	10.00		132	70-130	5	25	B+
1,2,3-Trichlorobenzene	9.54		ug/L	10.00		95	70-130	5	25	
1,2,3-Trichloropropane	9.43		ug/L	10.00		94	70-130	2	25	
1,2,4-Trichlorobenzene	8.75		ug/L	10.00		88	70-130	4	25	
1,2,4-Trimethylbenzene	9.97		ug/L	10.00		100	70-130	3	25	
1,2-Dibromo-3-Chloropropane	9.04		ug/L	10.00		90	70-130	2	25	
1,2-Dibromoethane	10.1		ug/L	10.00		101	70-130	0.6	25	
1,2-Dichlorobenzene	9.97		ug/L	10.00		100	70-130	2	25	
1,2-Dichloroethane	12.6		ug/L	10.00		126	70-130	3	25	
1,2-Dichloropropane	12.1		ug/L	10.00		121	70-130	4	25	
1,3,5-Trimethylbenzene	10.6		ug/L	10.00		106	70-130	0.6	25	
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130	5	25	
1,3-Dichloropropane	10.7		ug/L	10.00		107	70-130	2	25	
1,4-Dichlorobenzene	9.76		ug/L	10.00		98	70-130	3	25	
1,4-Dioxane - Screen	208		ug/L	200.0		104	0-332	4	200	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41930 - 5030B										
1-Chlorohexane	8.69		ug/L	10.00		87	70-130	4	25	
2,2-Dichloropropane	11.5		ug/L	10.00		115	70-130	2	25	
2-Butanone	62.3		ug/L	50.00		125	70-130	3	25	
2-Chlorotoluene	10.8		ug/L	10.00		108	70-130	2	25	
2-Hexanone	53.7		ug/L	50.00		107	70-130	5	25	
4-Chlorotoluene	10.8		ug/L	10.00		108	70-130	0.8	25	
4-Isopropyltoluene	9.63		ug/L	10.00		96	70-130	3	25	
4-Methyl-2-Pentanone	60.9		ug/L	50.00		122	70-130	5	25	
Acetone	67.6		ug/L	50.00		135	70-130	6	25	B+
Benzene	12.6		ug/L	10.00		126	70-130	4	25	
Bromobenzene	9.74		ug/L	10.00		97	70-130	0.8	25	
Bromochloromethane	12.6		ug/L	10.00		126	70-130	1	25	
Bromodichloromethane	12.6		ug/L	10.00		126	70-130	5	25	
Bromoform	9.90		ug/L	10.00		99	70-130	1	25	
Bromomethane	15.4		ug/L	10.00		154	70-130	0.8	25	B+
Carbon Disulfide	12.1		ug/L	10.00		121	70-130	3	25	
Carbon Tetrachloride	12.4		ug/L	10.00		124	70-130	3	25	
Chlorobenzene	10.5		ug/L	10.00		105	70-130	1	25	
Chloroethane	11.7		ug/L	10.00		117	70-130	2	25	
Chloroform	12.9		ug/L	10.00		129	70-130	4	25	
Chloromethane	12.6		ug/L	10.00		126	70-130	8	25	
cis-1,2-Dichloroethene	12.9		ug/L	10.00		129	70-130	5	25	
cis-1,3-Dichloropropene	11.6		ug/L	10.00		116	70-130	5	25	
Dibromochloromethane	10.6		ug/L	10.00		106	70-130	2	25	
Dibromomethane	12.7		ug/L	10.00		127	70-130	5	25	
Dichlorodifluoromethane	11.0		ug/L	10.00		110	70-130	3	25	
Diethyl Ether	12.2		ug/L	10.00		122	70-130	3	25	
Di-isopropyl ether	11.5		ug/L	10.00		115	70-130	4	25	
Ethyl tertiary-butyl ether	9.63		ug/L	10.00		96	70-130	2	25	
Ethylbenzene	9.99		ug/L	10.00		100	70-130	2	25	
Hexachlorobutadiene	9.46		ug/L	10.00		95	70-130	5	25	
Hexachloroethane	9.27		ug/L	10.00		93	70-130	4	25	
Isopropylbenzene	10.2		ug/L	10.00		102	70-130	3	25	
Methyl tert-Butyl Ether	10.1		ug/L	10.00		101	70-130	4	25	
Methylene Chloride	12.5		ug/L	10.00		125	70-130	4	25	
Naphthalene	8.32		ug/L	10.00		83	70-130	12	25	
n-Butylbenzene	9.26		ug/L	10.00		93	70-130	3	25	
n-Propylbenzene	10.1		ug/L	10.00		101	70-130	2	25	
sec-Butylbenzene	10.5		ug/L	10.00		105	70-130	2	25	
Styrene	8.76		ug/L	10.00		88	70-130	2	25	
tert-Butylbenzene	10.1		ug/L	10.00		101	70-130	3	25	
Tertiary-amyl methyl ether	8.59		ug/L	10.00		86	70-130	3	25	
Tetrachloroethene	9.90		ug/L	10.00		99	70-130	3	25	
Tetrahydrofuran	11.2		ug/L	10.00		112	70-130	2	25	
Toluene	12.8		ug/L	10.00		128	70-130	2	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF41930 - 5030B										
trans-1,2-Dichloroethene	12.4		ug/L	10.00		124	70-130	7	25	
trans-1,3-Dichloropropene	10.0		ug/L	10.00		100	70-130	0.6	25	
Trichloroethene	11.8		ug/L	10.00		118	70-130	3	25	
Trichlorofluoromethane	11.5		ug/L	10.00		115	70-130	5	25	
Vinyl Acetate	10.1		ug/L	10.00		101	70-130	5	25	
Vinyl Chloride	12.3		ug/L	10.00		123	70-130	4	25	
Xylene O	11.1		ug/L	10.00		111	70-130	0.6	25	
Xylene P,M	21.4		ug/L	20.00		107	70-130	1	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0256*		mg/L	*0.02500*		*102*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0201*		mg/L	*0.02500*		*81*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0272*		mg/L	*0.02500*		*109*	*70-130*			
Surrogate: Toluene-d8	*0.0213*		mg/L	*0.02500*		*85*	*70-130*			
Batch CF42440 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42440 - 5030B										
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0255*		mg/L	*0.02500*		*102*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0234*		mg/L	*0.02500*		*94*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42440 - 5030B										
Surrogate: Dibromofluoromethane	*0.0255*		mg/L	*0.02500*		*102*	*70-130*			
Surrogate: Toluene-d8	*0.0248*		mg/L	*0.02500*		*99*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.92		ug/L	10.00		99	70-130			
1,1,1-Trichloroethane	9.99		ug/L	10.00		100	70-130			
1,1,2,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130			
1,1,2-Trichloroethane	9.99		ug/L	10.00		100	70-130			
1,1-Dichloroethane	9.82		ug/L	10.00		98	70-130			
1,1-Dichloroethene	10.2		ug/L	10.00		102	70-130			
1,1-Dichloropropene	11.1		ug/L	10.00		111	70-130			
1,2,3-Trichlorobenzene	10.3		ug/L	10.00		103	70-130			
1,2,3-Trichloropropane	9.84		ug/L	10.00		98	70-130			
1,2,4-Trichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,2,4-Trimethylbenzene	9.40		ug/L	10.00		94	70-130			
1,2-Dibromo-3-Chloropropane	10.6		ug/L	10.00		106	70-130			
1,2-Dibromoethane	10.3		ug/L	10.00		103	70-130			
1,2-Dichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,2-Dichloroethane	10.2		ug/L	10.00		102	70-130			
1,2-Dichloropropane	9.78		ug/L	10.00		98	70-130			
1,3,5-Trimethylbenzene	10.2		ug/L	10.00		102	70-130			
1,3-Dichlorobenzene	9.81		ug/L	10.00		98	70-130			
1,3-Dichloropropane	10.4		ug/L	10.00		104	70-130			
1,4-Dichlorobenzene	9.58		ug/L	10.00		96	70-130			
1,4-Dioxane - Screen	213		ug/L	200.0		106	0-332			
1-Chlorohexane	10.1		ug/L	10.00		101	70-130			
2,2-Dichloropropane	9.47		ug/L	10.00		95	70-130			
2-Butanone	49.5		ug/L	50.00		99	70-130			
2-Chlorotoluene	10.4		ug/L	10.00		104	70-130			
2-Hexanone	51.5		ug/L	50.00		103	70-130			
4-Chlorotoluene	10.0		ug/L	10.00		100	70-130			
4-Isopropyltoluene	9.62		ug/L	10.00		96	70-130			
4-Methyl-2-Pentanone	49.8		ug/L	50.00		100	70-130			
Acetone	45.4		ug/L	50.00		91	70-130			
Benzene	10.1		ug/L	10.00		101	70-130			
Bromobenzene	9.79		ug/L	10.00		98	70-130			
Bromochloromethane	10.3		ug/L	10.00		103	70-130			
Bromodichloromethane	10.4		ug/L	10.00		104	70-130			
Bromoform	9.63		ug/L	10.00		96	70-130			
Bromomethane	9.77		ug/L	10.00		98	70-130			
Carbon Disulfide	9.96		ug/L	10.00		100	70-130			
Carbon Tetrachloride	10.1		ug/L	10.00		101	70-130			
Chlorobenzene	10.5		ug/L	10.00		105	70-130			
Chloroethane	8.98		ug/L	10.00		90	70-130			
Chloroform	9.79		ug/L	10.00		98	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42440 - 5030B										
Chloromethane	9.61		ug/L	10.00		96	70-130			
cis-1,2-Dichloroethene	10.4		ug/L	10.00		104	70-130			
cis-1,3-Dichloropropene	9.68		ug/L	10.00		97	70-130			
Dibromochloromethane	9.78		ug/L	10.00		98	70-130			
Dibromomethane	10.2		ug/L	10.00		102	70-130			
Dichlorodifluoromethane	9.59		ug/L	10.00		96	70-130			
Diethyl Ether	9.87		ug/L	10.00		99	70-130			
Di-isopropyl ether	10.0		ug/L	10.00		100	70-130			
Ethyl tertiary-butyl ether	9.68		ug/L	10.00		97	70-130			
Ethylbenzene	10.4		ug/L	10.00		104	70-130			
Hexachlorobutadiene	9.62		ug/L	10.00		96	70-130			
Hexachloroethane	9.09		ug/L	10.00		91	70-130			
Isopropylbenzene	10.3		ug/L	10.00		103	70-130			
Methyl tert-Butyl Ether	9.51		ug/L	10.00		95	70-130			
Methylene Chloride	10.8		ug/L	10.00		108	70-130			
Naphthalene	10.0		ug/L	10.00		100	70-130			
n-Butylbenzene	9.52		ug/L	10.00		95	70-130			
n-Propylbenzene	10.4		ug/L	10.00		104	70-130			
sec-Butylbenzene	10.4		ug/L	10.00		104	70-130			
Styrene	10.0		ug/L	10.00		100	70-130			
tert-Butylbenzene	10.3		ug/L	10.00		103	70-130			
Tertiary-amyl methyl ether	9.29		ug/L	10.00		93	70-130			
Tetrachloroethene	8.69		ug/L	10.00		87	70-130			
Tetrahydrofuran	9.67		ug/L	10.00		97	70-130			
Toluene	10.2		ug/L	10.00		102	70-130			
trans-1,2-Dichloroethene	10.3		ug/L	10.00		103	70-130			
trans-1,3-Dichloropropene	9.02		ug/L	10.00		90	70-130			
Trichloroethene	9.68		ug/L	10.00		97	70-130			
Trichlorofluoromethane	9.41		ug/L	10.00		94	70-130			
Vinyl Acetate	10.0		ug/L	10.00		100	70-130			
Vinyl Chloride	10.3		ug/L	10.00		103	70-130			
Xylene O	10.8		ug/L	10.00		108	70-130			
Xylene P,M	21.4		ug/L	20.00		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0236*		mg/L	*0.02500*		*94*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0230*		mg/L	*0.02500*		*92*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0247*		mg/L	*0.02500*		*99*	*70-130*			
Surrogate: Toluene-d8	*0.0241*		mg/L	*0.02500*		*96*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.0		ug/L	10.00		100	70-130	1	25	
1,1,1-Trichloroethane	9.93		ug/L	10.00		99	70-130	0.6	25	
1,1,2,2-Tetrachloroethane	10.5		ug/L	10.00		105	70-130	0.5	25	
1,1,2-Trichloroethane	10.1		ug/L	10.00		101	70-130	1	25	
1,1-Dichloroethane	9.95		ug/L	10.00		100	70-130	1	25	
1,1-Dichloroethene	10.6		ug/L	10.00		106	70-130	4	25	
1,1-Dichloropropene	11.4		ug/L	10.00		114	70-130	2	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42440 - 5030B										
1,2,3-Trichlorobenzene	10.6		ug/L	10.00		106	70-130	3	25	
1,2,3-Trichloropropane	10.0		ug/L	10.00		100	70-130	2	25	
1,2,4-Trichlorobenzene	10.5		ug/L	10.00		105	70-130	3	25	
1,2,4-Trimethylbenzene	9.68		ug/L	10.00		97	70-130	3	25	
1,2-Dibromo-3-Chloropropane	10.7		ug/L	10.00		107	70-130	0.5	25	
1,2-Dibromoethane	10.5		ug/L	10.00		105	70-130	2	25	
1,2-Dichlorobenzene	10.8		ug/L	10.00		108	70-130	3	25	
1,2-Dichloroethane	10.4		ug/L	10.00		104	70-130	2	25	
1,2-Dichloropropane	9.99		ug/L	10.00		100	70-130	2	25	
1,3,5-Trimethylbenzene	10.5		ug/L	10.00		105	70-130	3	25	
1,3-Dichlorobenzene	10.1		ug/L	10.00		101	70-130	3	25	
1,3-Dichloropropane	10.4		ug/L	10.00		104	70-130	0.1	25	
1,4-Dichlorobenzene	9.95		ug/L	10.00		100	70-130	4	25	
1,4-Dioxane - Screen	208		ug/L	200.0		104	0-332	2	200	
1-Chlorohexane	10.2		ug/L	10.00		102	70-130	0.7	25	
2,2-Dichloropropane	9.32		ug/L	10.00		93	70-130	2	25	
2-Butanone	50.6		ug/L	50.00		101	70-130	2	25	
2-Chlorotoluene	10.6		ug/L	10.00		106	70-130	2	25	
2-Hexanone	52.7		ug/L	50.00		105	70-130	2	25	
4-Chlorotoluene	10.5		ug/L	10.00		105	70-130	4	25	
4-Isopropyltoluene	10.0		ug/L	10.00		100	70-130	4	25	
4-Methyl-2-Pentanone	49.5		ug/L	50.00		99	70-130	0.5	25	
Acetone	45.8		ug/L	50.00		92	70-130	0.9	25	
Benzene	10.3		ug/L	10.00		103	70-130	2	25	
Bromobenzene	10.0		ug/L	10.00		100	70-130	3	25	
Bromochloromethane	10.1		ug/L	10.00		101	70-130	1	25	
Bromodichloromethane	10.4		ug/L	10.00		104	70-130	0.5	25	
Bromoform	9.39		ug/L	10.00		94	70-130	3	25	
Bromomethane	9.69		ug/L	10.00		97	70-130	0.8	25	
Carbon Disulfide	10.2		ug/L	10.00		102	70-130	2	25	
Carbon Tetrachloride	9.96		ug/L	10.00		100	70-130	1	25	
Chlorobenzene	10.6		ug/L	10.00		106	70-130	0.5	25	
Chloroethane	9.17		ug/L	10.00		92	70-130	2	25	
Chloroform	9.85		ug/L	10.00		98	70-130	0.6	25	
Chloromethane	9.89		ug/L	10.00		99	70-130	3	25	
cis-1,2-Dichloroethene	10.6		ug/L	10.00		106	70-130	2	25	
cis-1,3-Dichloropropene	9.96		ug/L	10.00		100	70-130	3	25	
Dibromochloromethane	9.92		ug/L	10.00		99	70-130	1	25	
Dibromomethane	10.4		ug/L	10.00		104	70-130	2	25	
Dichlorodifluoromethane	9.64		ug/L	10.00		96	70-130	0.5	25	
Diethyl Ether	9.89		ug/L	10.00		99	70-130	0.2	25	
Di-isopropyl ether	10.2		ug/L	10.00		102	70-130	1	25	
Ethyl tertiary-butyl ether	9.82		ug/L	10.00		98	70-130	1	25	
Ethylbenzene	10.5		ug/L	10.00		105	70-130	1	25	
Hexachlorobutadiene	9.87		ug/L	10.00		99	70-130	3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42440 - 5030B										
Hexachloroethane	9.30		ug/L	10.00		93	70-130	2	25	
Isopropylbenzene	10.7		ug/L	10.00		107	70-130	3	25	
Methyl tert-Butyl Ether	9.44		ug/L	10.00		94	70-130	0.7	25	
Methylene Chloride	10.9		ug/L	10.00		109	70-130	0.6	25	
Naphthalene	10.3		ug/L	10.00		103	70-130	3	25	
n-Butylbenzene	9.86		ug/L	10.00		99	70-130	4	25	
n-Propylbenzene	10.8		ug/L	10.00		108	70-130	3	25	
sec-Butylbenzene	10.8		ug/L	10.00		108	70-130	4	25	
Styrene	10.2		ug/L	10.00		102	70-130	2	25	
tert-Butylbenzene	10.7		ug/L	10.00		107	70-130	3	25	
Tertiary-amyl methyl ether	9.27		ug/L	10.00		93	70-130	0.2	25	
Tetrachloroethene	8.72		ug/L	10.00		87	70-130	0.3	25	
Tetrahydrofuran	9.91		ug/L	10.00		99	70-130	2	25	
Toluene	10.3		ug/L	10.00		103	70-130	1	25	
trans-1,2-Dichloroethene	10.4		ug/L	10.00		104	70-130	0.8	25	
trans-1,3-Dichloropropene	9.04		ug/L	10.00		90	70-130	0.2	25	
Trichloroethene	10.0		ug/L	10.00		100	70-130	3	25	
Trichlorofluoromethane	9.56		ug/L	10.00		96	70-130	2	25	
Vinyl Acetate	10.1		ug/L	10.00		101	70-130	1	25	
Vinyl Chloride	10.5		ug/L	10.00		105	70-130	1	25	
Xylene O	10.9		ug/L	10.00		109	70-130	0.5	25	
Xylene P,M	21.6		ug/L	20.00		108	70-130	1	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0238*		mg/L	*0.02500*		*95*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0257*		mg/L	*0.02500*		*103*	*70-130*			
Surrogate: Toluene-d8	*0.0248*		mg/L	*0.02500*		*99*	*70-130*			
Batch CF42544 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42544 - 5030B										
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42544 - 5030B										
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0237*		mg/L	*0.02500*		*95*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0234*		mg/L	*0.02500*		*93*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0247*		mg/L	*0.02500*		*99*	*70-130*			
Surrogate: Toluene-d8	*0.0225*		mg/L	*0.02500*		*90*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.58		ug/L	10.00		96	70-130			
1,1,1-Trichloroethane	10.8		ug/L	10.00		108	70-130			
1,1,2,2-Tetrachloroethane	10.3		ug/L	10.00		103	70-130			
1,1,2-Trichloroethane	10.3		ug/L	10.00		103	70-130			
1,1-Dichloroethane	10.6		ug/L	10.00		106	70-130			
1,1-Dichloroethene	11.4		ug/L	10.00		114	70-130			
1,1-Dichloropropene	11.4		ug/L	10.00		114	70-130			
1,2,3-Trichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,2,3-Trichloropropane	9.62		ug/L	10.00		96	70-130			
1,2,4-Trichlorobenzene	9.59		ug/L	10.00		96	70-130			
1,2,4-Trimethylbenzene	9.37		ug/L	10.00		94	70-130			
1,2-Dibromo-3-Chloropropane	9.11		ug/L	10.00		91	70-130			
1,2-Dibromoethane	10.7		ug/L	10.00		107	70-130			
1,2-Dichlorobenzene	11.2		ug/L	10.00		112	70-130			
1,2-Dichloroethane	11.0		ug/L	10.00		110	70-130			
1,2-Dichloropropane	10.5		ug/L	10.00		105	70-130			
1,3,5-Trimethylbenzene	9.86		ug/L	10.00		99	70-130			
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,3-Dichloropropane	10.2		ug/L	10.00		102	70-130			
1,4-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,4-Dioxane - Screen	291		ug/L	200.0		146	0-332			
1-Chlorohexane	8.41		ug/L	10.00		84	70-130			
2,2-Dichloropropane	10.2		ug/L	10.00		102	70-130			
2-Butanone	62.0		ug/L	50.00		124	70-130			
2-Chlorotoluene	10.4		ug/L	10.00		104	70-130			
2-Hexanone	55.9		ug/L	50.00		112	70-130			
4-Chlorotoluene	10.5		ug/L	10.00		105	70-130			
4-Isopropyltoluene	9.97		ug/L	10.00		100	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42544 - 5030B										
4-Methyl-2-Pentanone	57.4		ug/L	50.00		115	70-130			
Acetone	65.0		ug/L	50.00		130	70-130			
Benzene	11.3		ug/L	10.00		113	70-130			
Bromobenzene	10.2		ug/L	10.00		102	70-130			
Bromochloromethane	11.8		ug/L	10.00		118	70-130			
Bromodichloromethane	11.0		ug/L	10.00		110	70-130			
Bromoform	10.4		ug/L	10.00		104	70-130			
Bromomethane	10.7		ug/L	10.00		107	70-130			
Carbon Disulfide	10.7		ug/L	10.00		107	70-130			
Carbon Tetrachloride	10.2		ug/L	10.00		102	70-130			
Chlorobenzene	10.4		ug/L	10.00		104	70-130			
Chloroethane	8.53		ug/L	10.00		85	70-130			
Chloroform	10.6		ug/L	10.00		106	70-130			
Chloromethane	8.83		ug/L	10.00		88	70-130			
cis-1,2-Dichloroethene	11.8		ug/L	10.00		118	70-130			
cis-1,3-Dichloropropene	10.6		ug/L	10.00		106	70-130			
Dibromochloromethane	10.3		ug/L	10.00		103	70-130			
Dibromomethane	11.4		ug/L	10.00		114	70-130			
Dichlorodifluoromethane	9.04		ug/L	10.00		90	70-130			
Diethyl Ether	10.4		ug/L	10.00		104	70-130			
Di-isopropyl ether	11.7		ug/L	10.00		117	70-130			
Ethyl tertiary-butyl ether	10.6		ug/L	10.00		106	70-130			
Ethylbenzene	9.49		ug/L	10.00		95	70-130			
Hexachlorobutadiene	10.6		ug/L	10.00		106	70-130			
Hexachloroethane	10.3		ug/L	10.00		103	70-130			
Isopropylbenzene	9.99		ug/L	10.00		100	70-130			
Methyl tert-Butyl Ether	9.03		ug/L	10.00		90	70-130			
Methylene Chloride	11.3		ug/L	10.00		113	70-130			
Naphthalene	10.0		ug/L	10.00		100	70-130			
n-Butylbenzene	11.2		ug/L	10.00		112	70-130			
n-Propylbenzene	10.5		ug/L	10.00		105	70-130			
sec-Butylbenzene	11.4		ug/L	10.00		114	70-130			
Styrene	9.12		ug/L	10.00		91	70-130			
tert-Butylbenzene	9.97		ug/L	10.00		100	70-130			
Tertiary-amyl methyl ether	10.3		ug/L	10.00		103	70-130			
Tetrachloroethene	10.6		ug/L	10.00		106	70-130			
Tetrahydrofuran	11.1		ug/L	10.00		111	70-130			
Toluene	10.8		ug/L	10.00		108	70-130			
trans-1,2-Dichloroethene	11.4		ug/L	10.00		114	70-130			
trans-1,3-Dichloropropene	8.72		ug/L	10.00		87	70-130			
Trichloroethene	11.3		ug/L	10.00		113	70-130			
Trichlorofluoromethane	9.82		ug/L	10.00		98	70-130			
Vinyl Acetate	10.6		ug/L	10.00		106	70-130			
Vinyl Chloride	8.82		ug/L	10.00		88	70-130			
Xylene O	9.99		ug/L	10.00		100	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42544 - 5030B										
Xylene P,M	19.4		ug/L	20.00		97	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0277*		mg/L	*0.02500*		*111*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0236*		mg/L	*0.02500*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0282*		mg/L	*0.02500*		*113*	*70-130*			
Surrogate: Toluene-d8	*0.0240*		mg/L	*0.02500*		*96*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.52		ug/L	10.00		95	70-130	0.6	25	
1,1,1-Trichloroethane	10.2		ug/L	10.00		102	70-130	6	25	
1,1,2,2-Tetrachloroethane	10.7		ug/L	10.00		107	70-130	4	25	
1,1,2-Trichloroethane	10.8		ug/L	10.00		108	70-130	5	25	
1,1-Dichloroethane	11.0		ug/L	10.00		110	70-130	4	25	
1,1-Dichloroethene	10.5		ug/L	10.00		105	70-130	8	25	
1,1-Dichloropropene	11.1		ug/L	10.00		111	70-130	3	25	
1,2,3-Trichlorobenzene	9.51		ug/L	10.00		95	70-130	7	25	
1,2,3-Trichloropropane	9.31		ug/L	10.00		93	70-130	3	25	
1,2,4-Trichlorobenzene	9.52		ug/L	10.00		95	70-130	0.7	25	
1,2,4-Trimethylbenzene	9.55		ug/L	10.00		96	70-130	2	25	
1,2-Dibromo-3-Chloropropane	10.2		ug/L	10.00		102	70-130	11	25	
1,2-Dibromoethane	10.6		ug/L	10.00		106	70-130	1	25	
1,2-Dichlorobenzene	10.8		ug/L	10.00		108	70-130	3	25	
1,2-Dichloroethane	10.8		ug/L	10.00		108	70-130	2	25	
1,2-Dichloropropane	11.0		ug/L	10.00		110	70-130	5	25	
1,3,5-Trimethylbenzene	9.63		ug/L	10.00		96	70-130	2	25	
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130	0.5	25	
1,3-Dichloropropane	10.7		ug/L	10.00		107	70-130	4	25	
1,4-Dichlorobenzene	10.6		ug/L	10.00		106	70-130	0.6	25	
1,4-Dioxane - Screen	269		ug/L	200.0		134	0-332	8	200	
1-Chlorohexane	8.76		ug/L	10.00		88	70-130	4	25	
2,2-Dichloropropane	10.2		ug/L	10.00		102	70-130	1	25	
2-Butanone	59.7		ug/L	50.00		119	70-130	4	25	
2-Chlorotoluene	10.8		ug/L	10.00		108	70-130	3	25	
2-Hexanone	54.2		ug/L	50.00		108	70-130	3	25	
4-Chlorotoluene	10.4		ug/L	10.00		104	70-130	0.3	25	
4-Isopropyltoluene	9.50		ug/L	10.00		95	70-130	5	25	
4-Methyl-2-Pentanone	54.5		ug/L	50.00		109	70-130	5	25	
Acetone	63.5		ug/L	50.00		127	70-130	2	25	
Benzene	11.3		ug/L	10.00		113	70-130	0.4	25	
Bromobenzene	10.5		ug/L	10.00		105	70-130	3	25	
Bromochloromethane	10.7		ug/L	10.00		107	70-130	10	25	
Bromodichloromethane	10.9		ug/L	10.00		109	70-130	0.8	25	
Bromoform	9.83		ug/L	10.00		98	70-130	5	25	
Bromomethane	9.50		ug/L	10.00		95	70-130	12	25	
Carbon Disulfide	10.6		ug/L	10.00		106	70-130	0.7	25	
Carbon Tetrachloride	9.90		ug/L	10.00		99	70-130	3	25	
Chlorobenzene	10.1		ug/L	10.00		101	70-130	3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1406415

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42544 - 5030B										
Chloroethane	8.38		ug/L	10.00		84	70-130	2	25	
Chloroform	10.8		ug/L	10.00		108	70-130	1	25	
Chloromethane	9.00		ug/L	10.00		90	70-130	2	25	
cis-1,2-Dichloroethene	11.3		ug/L	10.00		113	70-130	4	25	
cis-1,3-Dichloropropene	10.5		ug/L	10.00		105	70-130	1	25	
Dibromochloromethane	9.56		ug/L	10.00		96	70-130	8	25	
Dibromomethane	11.0		ug/L	10.00		110	70-130	4	25	
Dichlorodifluoromethane	8.21		ug/L	10.00		82	70-130	10	25	
Diethyl Ether	9.84		ug/L	10.00		98	70-130	5	25	
Di-isopropyl ether	11.6		ug/L	10.00		116	70-130	0.9	25	
Ethyl tertiary-butyl ether	10.5		ug/L	10.00		105	70-130	0.9	25	
Ethylbenzene	9.32		ug/L	10.00		93	70-130	2	25	
Hexachlorobutadiene	10.3		ug/L	10.00		103	70-130	3	25	
Hexachloroethane	10.5		ug/L	10.00		105	70-130	1	25	
Isopropylbenzene	9.99		ug/L	10.00		100	70-130	0	25	
Methyl tert-Butyl Ether	9.64		ug/L	10.00		96	70-130	7	25	
Methylene Chloride	11.1		ug/L	10.00		111	70-130	2	25	
Naphthalene	9.11		ug/L	10.00		91	70-130	10	25	
n-Butylbenzene	10.5		ug/L	10.00		105	70-130	6	25	
n-Propylbenzene	10.2		ug/L	10.00		102	70-130	3	25	
sec-Butylbenzene	10.5		ug/L	10.00		105	70-130	8	25	
Styrene	9.61		ug/L	10.00		96	70-130	5	25	
tert-Butylbenzene	10.1		ug/L	10.00		101	70-130	1	25	
Tertiary-amyl methyl ether	10.2		ug/L	10.00		102	70-130	1	25	
Tetrachloroethene	10.0		ug/L	10.00		100	70-130	6	25	
Tetrahydrofuran	12.1		ug/L	10.00		121	70-130	9	25	
Toluene	10.6		ug/L	10.00		106	70-130	1	25	
trans-1,2-Dichloroethene	11.3		ug/L	10.00		113	70-130	1	25	
trans-1,3-Dichloropropene	8.94		ug/L	10.00		89	70-130	2	25	
Trichloroethene	10.6		ug/L	10.00		106	70-130	7	25	
Trichlorofluoromethane	9.64		ug/L	10.00		96	70-130	2	25	
Vinyl Acetate	10.6		ug/L	10.00		106	70-130	0.3	25	
Vinyl Chloride	9.01		ug/L	10.00		90	70-130	2	25	
Xylene O	9.90		ug/L	10.00		99	70-130	0.9	25	
Xylene P,M	19.1		ug/L	20.00		96	70-130	1	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0284*		mg/L	*0.02500*		*113*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0234*		mg/L	*0.02500*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0274*		mg/L	*0.02500*		*110*	*70-130*			
Surrogate: Toluene-d8	*0.0229*		mg/L	*0.02500*		*91*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406415

Notes and Definitions

U	Analyte included in the analysis, but not detected
D	Diluted.
B+	Blank Spike recovery is above upper control limit (B+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1406415

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: Client

ESS Project ID: 14060415
Date Project Due: 6/26/14
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	No
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: **4.6**		16. Are ESS labels on correct containers?	Yes | No
Iced With: **Ice**		17. Were samples received intact?	Yes | No
6. Was COC included with samples?	Yes	ESS Sample IDs: _____	
7. Was COC signed and dated by client?	Yes	Sub Lab: _____	
8. Does the COC match the sample	Yes	Analysis: _____	
9. Is COC complete and correct?	Yes	TAT: _____	

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?:_____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	40 ml - VOA	3	HCL
2	Yes	40 ml - VOA	3	HCL
3	Yes	40 ml - VOA	3	HCL
4	Yes	40 ml - VOA	3	HCL
5	Yes	40 ml - VOA	3	HCL
6	Yes	40 ml - VOA	3	HCL
7	Yes	40 ml - VOA	3	HCL
8	Yes	40 ml - VOA	3	HCL
9	Yes	40 ml - VOA	3	HCL
10	Yes	40 ml - VOA	3	HCL
11	Yes	40 ml - VOA	3	HCL
12	Yes	40 ml - VOA	3	HCL
13	Yes	40 ml - VOA	3	HCL
14	Yes	40 ml - VOA	3	HCL
15	Yes	40 ml - VOA	3	HCL
16	Yes	40 ml - VOA	3	HCL
17	Yes	40 ml - VOA	3	HCL
18	Yes	40 ml - VOA	2	HCL

Completed By: _____ Date/Time: 6/19/14 0215
Reviewed By: _____ Date/Time: 6/19/14 1708

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page 01 of 02

Turn Time: [X] Standard Other ____
If faster than 5 days, prior approval by laboratory is required # ____

State where samples were collected from:
MA (RI) CT NH NJ NY ME Other ____

Is this project for any of the following:
MA-MCP Navy USACE Other ____

Reporting Limits: RIDEM GB

ESS LAB PROJECT ID: 1406415

Electronic Deliverable: Yes [X] No ____

Format: Excel [X] Access ____ PDF [X] Other ____

Co. Name	Project #	Project Name (20 Char. or less)
GZA	33554	642 Allens Ave.

Contact Person	Address
Meg Kilpatrick	530 Broadway

City	State	Zip	PO#
Providence	RI	02909	

Telephone #	Fax #	Email Address
401 421 4140		mkilpatrick@gza.com

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	Write Required Analysis: VOCs 8260B
1	6/18/14	1000			GW	RCA-1	Z	3	V	X
2	6/18/14	1040			GW	GZ-303S	Z	3	V	X
3	6/18/14	1025			GW	GZ-303D	Z	3	V	X
4	6/18/14	0406			GW	RCA-12R	Z	3	V	X
5	6/18/14	0950			GW	GZ-302D	Z	3	V	X
6	6/18/14	1108			GW	GZ-301D	Z	3	V	X
7	6/18/14	1345			GW	RCA-3	Z	3	V	X
8	6/18/14	1407			GW	GZ-313D	Z	3	V	X
9	6/18/14	1517			GW	GZ-312S	Z	3	V	X
10	6/18/14	0910			GW	GZ-304D	Z	3	V	X

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: [X] Yes ___ No
Seals Intact: ___ Yes ___ No NA: X
Cooler Temp: 4.2 iq

Internal Use Only
[ ] Pickup
[ ] Technicians ____

Preservation Code: 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- ____

Sampled by: RAY TAYLOR SOPHIA NAKKEWICZ

Comments: NGRID RATES APPLY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/18/14 17:38	[signature]	6/18/14 1738				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page 02 of 02

Turn Time ~~X~~ Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
MA (RI) CT NH NJ NY ME Other _____

Is this project for any of the following:
MA-MCP Navy USACE Other _____

Reporting Limits: RI DEM GB

ESS LAB PROJECT ID: 1406415

Electronic Deliverable Yes X No ___
Format: Excel X Access ___ PDF X Other _____

Co. Name	Project #	Project Name (20 Char. or less)
GZA	33554	642 Allens Ave

Contact Person	Address
Meg Kilpatrick	530 Broadway

City	State	Zip	PO#
Providence	RI	02904	

Telephone #	Fax #	Email Address
401 421 4140		mKilpatrick@gza.com

Write Required Analysis: VOCs 8260B

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	VOCs 8260B
11	6/18/14	1110			gw	GZ-302S	2	3	V	X
12	6/18/14	0920			gw	GZ-305S	2	3	V	X
13	6/18/14	0845			gw	GZ-306	2	3	V	X
14	6/18/14	1500			gw	GZ-311D	2	3	V	X
15	6/18/14	1550			gw	GZ-312D	2	3	V	X
16	6/18/14	1440			gw	VHB-3	2	3	V	X
17	6/18/14	0700			gw	BD #1	2	3	V	X
18	6/18/14	0700			gw	TRIP BLANK-61814	2	2	V	X

Container Type: P-Poly G-Glass S-Sterile V-VOA
Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present X Yes ___ No Internal Use Only
Seals Intact ___ Yes ___ No NA: Y [ ] Pickup
Cooler Temp: 4 6 1 4 4 6/18/14 [ ] Technicians ____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by: Raymond Taylor Sophia Markiewicz

Comments: RUSH RATES APPLY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/18/14 17:38	[signature]	6/18/14 1738				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/20

CERTIFICATE OF ANALYSIS

Meg Kilpatrick
GZA GeoEnvironmental, Inc.
530 Broadway
Providence, RI 02909

RE: 642 Allens Ave (03.0033554)
ESS Laboratory Work Order Number: 1406486

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 4:44 pm, Jul 01, 2014

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

SAMPLE RECEIPT

The following samples were received on June 20, 2014 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1406486-01	VHB-13	Ground Water	8260B
1406486-02	GZ-315D	Ground Water	8260B
1406486-03	RCA-36	Ground Water	8260B
1406486-04	GZ-314D	Ground Water	8260B
1406486-05	GZ-314S	Ground Water	8260B
1406486-06	RCA-5	Ground Water	8260B
1406486-07	RCA-22	Ground Water	8260B
1406486-08	RCA-38	Ground Water	8260B
1406486-09	VHB-20	Ground Water	8260B
1406486-10	GZ-319D	Ground Water	8260B
1406486-11	RCA-28	Ground Water	8260B
1406486-12	BD 2	Ground Water	8260B
1406486-13	RCA-11	Ground Water	8260B
1406486-14	VHB-7	Ground Water	8260B
1406486-15	RCA-13	Ground Water	8260B
1406486-16	VHB-6	Ground Water	8260B
1406486-17	GZ-318D	Ground Water	8260B
1406486-18	VHB-21	Ground Water	8260B
1406486-19	Trip Blank 061914	Aqueous	8260B

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

PROJECT NARRATIVE

8260B Volatile Organic Compounds

CF42734-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Acetone (135% @ 70-130%), Vinyl Acetate (140% @ 70-130%)
CF42734-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (134% @ 70-130%)
CF42734-BSD1	**Relative percent difference for duplicate is outside of criteria (D+).**
	Acetone (34%)
CXF0376-CCV1	**Continuing Calibration recovery is above upper control limit (C+).**
	Vinyl Acetate (144% @ 70-130%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-13
Date Sampled: 06/19/14 09:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 13:53	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 13:53	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 13:53	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Benzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 13:53	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-13
Date Sampled: 06/19/14 09:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 13:53	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Ethylbenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Isopropylbenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Naphthalene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
n-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
n-Propylbenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
sec-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-13
Date Sampled: 06/19/14 09:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Toluene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Xylene O	ND (0.0010)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Xylene P,M	ND (0.0020)		8260B		1	06/26/14 13:53	CXF0361	CF42639
Xylenes (Total)	ND (0.0020)		8260B		1	06/26/14 13:53		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 13:53		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*92 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*89 %*		*70-130*
Surrogate: Dibromofluoromethane	*95 %*		*70-130*
Surrogate: Toluene-d8	*96 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-315D
Date Sampled: 06/19/14 12:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,2,4-Trimethylbenzene	**0.200** (0.100)		8260B		100	06/27/14 19:17	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,3,5-Trimethylbenzene	**0.0560** (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 20:35	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 20:35	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 20:35	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
4-Isopropyltoluene	**0.0117** (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Benzene	**0.698** (0.100)		8260B		100	06/27/14 19:17	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 20:35	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-315D
Date Sampled: 06/19/14 12:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 20:35	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Ethylbenzene	**0.596** (0.100)		8260B		100	06/27/14 19:17	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Isopropylbenzene	**0.0550** (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Naphthalene	**3.89** (0.100)		8260B		100	06/27/14 19:17	CXF0361	CF42639
n-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
n-Propylbenzene	**0.0164** (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
sec-Butylbenzene	**0.0016** (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-315D
Date Sampled: 06/19/14 12:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Toluene	**0.0184** (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Xylene O	**0.288** (0.100)		8260B		100	06/27/14 19:17	CXF0361	CF42639
Xylene P,M	**0.0867** (0.0020)		8260B		1	06/26/14 20:35	CXF0361	CF42639
Xylenes (Total)	**0.375** (0.100)		8260B		100	06/27/14 19:17		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 20:35		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*83 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*106 %*		*70-130*
Surrogate: Dibromofluoromethane	*84 %*		*70-130*
Surrogate: Toluene-d8	*101 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 06/19/14 10:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,2,4-Trimethylbenzene	**0.0203** (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,3,5-Trimethylbenzene	**0.0014** (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 14:27	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 14:27	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 14:27	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Benzene	**0.158** (0.0100)		8260B		10	06/30/14 12:43	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 14:27	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 06/19/14 10:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 14:27	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Ethylbenzene	**0.0303** (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Isopropylbenzene	**0.0047** (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Naphthalene	**0.0567** (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
n-Butylbenzene	**0.0031** (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
n-Propylbenzene	**0.0027** (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
sec-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 06/19/14 10:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Toluene	**0.0011** (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Xylene O	**0.0116** (0.0010)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Xylene P,M	**0.0025** (0.0020)		8260B		1	06/26/14 14:27	CXF0361	CF42639
Xylenes (Total)	**0.0141** (0.0020)		8260B		1	06/26/14 14:27		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 14:27		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*92 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*96 %*		*70-130*
Surrogate: Dibromofluoromethane	*94 %*		*70-130*
Surrogate: Toluene-d8	*97 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314D
Date Sampled: 06/19/14 12:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,2,4-Trimethylbenzene	**0.183** (0.100)		8260B		100	06/27/14 19:44	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,3,5-Trimethylbenzene	**0.0379** (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 21:08	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 21:08	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 21:08	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
4-Isopropyltoluene	**0.0083** (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Benzene	**2.01** (0.100)		8260B		100	06/27/14 19:44	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 21:08	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314D
Date Sampled: 06/19/14 12:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 21:08	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Ethylbenzene	**0.642** (0.100)		8260B		100	06/27/14 19:44	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Isopropylbenzene	**0.0448** (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Naphthalene	**3.43** (0.100)		8260B		100	06/27/14 19:44	CXF0361	CF42639
n-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
n-Propylbenzene	**0.0180** (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
sec-Butylbenzene	**0.0020** (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314D
Date Sampled: 06/19/14 12:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Toluene	**0.0147** (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Xylene O	**0.144** (0.100)		8260B		100	06/27/14 19:44	CXF0361	CF42639
Xylene P,M	**0.0407** (0.0020)		8260B		1	06/26/14 21:08	CXF0361	CF42639
Xylenes (Total)	**0.185** (0.100)		8260B		100	06/27/14 19:44		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 21:08		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*81 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*106 %*		*70-130*
Surrogate: Dibromofluoromethane	*83 %*		*70-130*
Surrogate: Toluene-d8	*102 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314S
Date Sampled: 06/19/14 12:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,2,4-Trimethylbenzene	**0.247** (0.100)		8260B		100	06/27/14 20:11	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,3,5-Trimethylbenzene	**0.0667** (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 17:14	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 17:14	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 17:14	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
4-Isopropyltoluene	**0.0111** (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Benzene	**7.27** (0.100)		8260B		100	06/27/14 20:11	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 17:14	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314S
Date Sampled: 06/19/14 12:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 17:14	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Ethylbenzene	**1.57** (0.100)		8260B		100	06/27/14 20:11	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Isopropylbenzene	**0.0579** (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Naphthalene	**5.37** (0.100)		8260B		100	06/27/14 20:11	CXF0361	CF42639
n-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
n-Propylbenzene	**0.0180** (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
sec-Butylbenzene	**0.0016** (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314S
Date Sampled: 06/19/14 12:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Toluene	**0.0368** (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 17:14	CXF0361	CF42639
Xylene O	**0.412** (0.100)		8260B		100	06/27/14 20:11	CXF0361	CF42639
Xylene P,M	ND (0.200)		8260B		100	06/27/14 20:11	CXF0361	CF42639
Xylenes (Total)	**0.412** (0.200)		8260B		100	06/27/14 20:11		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 17:14		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*88 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*106 %*		*70-130*
Surrogate: Dibromofluoromethane	*92 %*		*70-130*
Surrogate: Toluene-d8	*98 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-5
Date Sampled: 06/19/14 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,2,4-Trimethylbenzene	**0.0039** (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/27/14 14:57	CXF0376	CF42734
1-Chlorohexane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
2-Butanone	ND (0.0100)		8260B		1	06/27/14 14:57	CXF0376	CF42734
2-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
2-Hexanone	ND (0.0100)		8260B		1	06/27/14 14:57	CXF0376	CF42734
4-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Acetone	ND (0.0100)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Benzene	**0.0080** (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Bromobenzene	ND (0.0020)		8260B		1	06/27/14 14:57	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-5
Date Sampled: 06/19/14 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Bromodichloromethane	ND (0.0006)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Bromoform	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Bromomethane	ND (0.0020)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Carbon Disulfide	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Chlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Chloroethane	ND (0.0020)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Chloroform	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Chloromethane	ND (0.0020)		8260B		1	06/27/14 14:57	CXF0376	CF42734
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Dibromochloromethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Dibromomethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Diethyl Ether	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Di-isopropyl ether	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Ethylbenzene	**0.0094** (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Hexachloroethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Isopropylbenzene	**0.0017** (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Methylene Chloride	ND (0.0020)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Naphthalene	**0.0199** (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
n-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
n-Propylbenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
sec-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Styrene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
tert-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Tetrachloroethene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-5
Date Sampled: 06/19/14 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Toluene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Trichloroethene	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Vinyl Acetate	ND (0.0050)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Vinyl Chloride	ND (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Xylene O	**0.0037** (0.0010)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Xylene P,M	ND (0.0020)		8260B		1	06/27/14 14:57	CXF0376	CF42734
Xylenes (Total)	**0.0037** (0.0020)		8260B		1	06/27/14 14:57		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/27/14 14:57		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*84 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-22
Date Sampled: 06/19/14 13:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,2,4-Trimethylbenzene	**0.0042** (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 18:21	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 18:21	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 18:21	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Benzene	**0.766** (0.0500)		8260B		50	06/27/14 18:24	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 18:21	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-22
Date Sampled: 06/19/14 13:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 18:21	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Ethylbenzene	**0.0404** (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Isopropylbenzene	**0.0273** (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Naphthalene	**0.390** (0.0500)		8260B		50	06/27/14 18:24	CXF0361	CF42639
n-Butylbenzene	**0.0054** (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
n-Propylbenzene	**0.0086** (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
sec-Butylbenzene	**0.0016** (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-22
Date Sampled: 06/19/14 13:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Toluene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Xylene O	**0.0108** (0.0010)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Xylene P,M	**0.0024** (0.0020)		8260B		1	06/26/14 18:21	CXF0361	CF42639
Xylenes (Total)	**0.0132** (0.0020)		8260B		1	06/26/14 18:21		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 18:21		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*83 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*102 %*		*70-130*
Surrogate: Dibromofluoromethane	*83 %*		*70-130*
Surrogate: Toluene-d8	*101 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-38
Date Sampled: 06/19/14 13:42
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/27/14 13:50	CXF0376	CF42734
1-Chlorohexane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
2-Butanone	ND (0.0100)		8260B		1	06/27/14 13:50	CXF0376	CF42734
2-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
2-Hexanone	ND (0.0100)		8260B		1	06/27/14 13:50	CXF0376	CF42734
4-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Acetone	ND (0.0100)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Benzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Bromobenzene	ND (0.0020)		8260B		1	06/27/14 13:50	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-38
Date Sampled: 06/19/14 13:42
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Bromodichloromethane	ND (0.0006)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Bromoform	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Bromomethane	ND (0.0020)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Carbon Disulfide	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Chlorobenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Chloroethane	ND (0.0020)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Chloroform	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Chloromethane	ND (0.0020)		8260B		1	06/27/14 13:50	CXF0376	CF42734
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Dibromochloromethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Dibromomethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Diethyl Ether	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Di-isopropyl ether	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Ethylbenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Hexachloroethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Isopropylbenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Methylene Chloride	ND (0.0020)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Naphthalene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
n-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
n-Propylbenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
sec-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Styrene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
tert-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Tetrachloroethene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-38
Date Sampled: 06/19/14 13:42
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Toluene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Trichloroethene	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Vinyl Acetate	ND (0.0050)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Vinyl Chloride	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Xylene O	ND (0.0010)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Xylene P,M	ND (0.0020)		8260B		1	06/27/14 13:50	CXF0376	CF42734
Xylenes (Total)	ND (0.0020)		8260B		1	06/27/14 13:50		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/27/14 13:50		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*84 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*98 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-20
Date Sampled: 06/19/14 14:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 16:40	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 16:40	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 16:40	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Benzene	**0.0541** (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 16:40	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-20
Date Sampled: 06/19/14 14:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 16:40	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Ethylbenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Isopropylbenzene	**0.0061** (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Naphthalene	**0.0128** (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
n-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
n-Propylbenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
sec-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-20
Date Sampled: 06/19/14 14:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Toluene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Xylene O	**0.0028** (0.0010)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Xylene P,M	ND (0.0020)		8260B		1	06/26/14 16:40	CXF0361	CF42639
Xylenes (Total)	**0.0028** (0.0020)		8260B		1	06/26/14 16:40		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 16:40		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*89 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*94 %*		*70-130*
Surrogate: Dibromofluoromethane	*91 %*		*70-130*
Surrogate: Toluene-d8	*95 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-319D
Date Sampled: 06/19/14 15:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,2,4-Trimethylbenzene	**0.0032** (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/27/14 20:32	CXF0376	CF42734
1-Chlorohexane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
2-Butanone	ND (0.0100)		8260B		1	06/27/14 20:32	CXF0376	CF42734
2-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
2-Hexanone	ND (0.0100)		8260B		1	06/27/14 20:32	CXF0376	CF42734
4-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Acetone	ND (0.0100)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Benzene	**0.0092** (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Bromobenzene	ND (0.0020)		8260B		1	06/27/14 20:32	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-319D
Date Sampled: 06/19/14 15:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Bromodichloromethane	ND (0.0006)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Bromoform	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Bromomethane	ND (0.0020)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Carbon Disulfide	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Chlorobenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Chloroethane	ND (0.0020)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Chloroform	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Chloromethane	ND (0.0020)		8260B		1	06/27/14 20:32	CXF0376	CF42734
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Dibromochloromethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Dibromomethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Diethyl Ether	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Di-isopropyl ether	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Ethylbenzene	**0.0047** (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Hexachloroethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Isopropylbenzene	**0.0010** (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Methyl tert-Butyl Ether	**0.0017** (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Methylene Chloride	ND (0.0020)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Naphthalene	**0.0999** (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
n-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
n-Propylbenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
sec-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Styrene	**0.0013** (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
tert-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Tetrachloroethene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-319D
Date Sampled: 06/19/14 15:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Toluene	**0.0013** (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Trichloroethene	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Vinyl Acetate	ND (0.0050)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Vinyl Chloride	ND (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Xylene O	**0.0032** (0.0010)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Xylene P,M	**0.0030** (0.0020)		8260B		1	06/27/14 20:32	CXF0376	CF42734
Xylenes (Total)	**0.0062** (0.0020)		8260B		1	06/27/14 20:32		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/27/14 20:32		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*85 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*100 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*101 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-28
Date Sampled: 06/19/14 15:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,1-Dichloroethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,1-Dichloroethene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,1-Dichloropropene	ND (0.0020)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,2,4-Trimethylbenzene	**0.109** (0.100)		8260B		100	07/01/14 14:09	CXG0011	CG40141
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,2-Dibromoethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,2-Dichloroethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,2-Dichloropropane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,3,5-Trimethylbenzene	**0.0530** (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,3-Dichloropropane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1,4-Dioxane - Screen	ND (0.500)		8260B		1	07/01/14 14:42	CXG0011	CG40141
1-Chlorohexane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
2,2-Dichloropropane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
2-Butanone	ND (0.0100)		8260B		1	07/01/14 14:42	CXG0011	CG40141
2-Chlorotoluene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
2-Hexanone	ND (0.0100)		8260B		1	07/01/14 14:42	CXG0011	CG40141
4-Chlorotoluene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
4-Isopropyltoluene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Acetone	ND (0.0100)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Benzene	**0.0207** (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Bromobenzene	ND (0.0020)		8260B		1	07/01/14 14:42	CXG0011	CG40141

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-28
Date Sampled: 06/19/14 15:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Bromodichloromethane	ND (0.0006)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Bromoform	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Bromomethane	ND (0.0020)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Carbon Disulfide	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Carbon Tetrachloride	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Chlorobenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Chloroethane	ND (0.0020)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Chloroform	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Chloromethane	ND (0.0020)		8260B		1	07/01/14 14:42	CXG0011	CG40141
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Dibromochloromethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Dibromomethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Dichlorodifluoromethane	ND (0.0020)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Diethyl Ether	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Di-isopropyl ether	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Ethylbenzene	**0.0492** (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Hexachlorobutadiene	ND (0.0006)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Hexachloroethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Isopropylbenzene	**0.0028** (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Methylene Chloride	ND (0.0020)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Naphthalene	**2.95** (0.100)		8260B		100	07/01/14 14:09	CXG0011	CG40141
n-Butylbenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
n-Propylbenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
sec-Butylbenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Styrene	**0.0047** (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
tert-Butylbenzene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Tetrachloroethene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-28
Date Sampled: 06/19/14 15:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Toluene	**0.100** (0.100)		8260B		100	07/01/14 14:09	CXG0011	CG40141
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Trichloroethene	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Trichlorofluoromethane	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Vinyl Acetate	ND (0.0050)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Vinyl Chloride	ND (0.0010)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Xylene O	**0.136** (0.100)		8260B		100	07/01/14 14:09	CXG0011	CG40141
Xylene P,M	**0.197** (0.0020)		8260B		1	07/01/14 14:42	CXG0011	CG40141
Xylenes (Total)	**0.333** (0.100)		8260B		100	07/01/14 14:42		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			07/01/14 14:42		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*84 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*103 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*99 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD 2
Date Sampled: 06/19/14 07:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,2,4-Trimethylbenzene	**0.168** (0.100)		8260B		100	06/27/14 20:37	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,3,5-Trimethylbenzene	**0.0368** (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 20:01	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 20:01	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 20:01	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
4-Isopropyltoluene	**0.0082** (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Benzene	**2.12** (0.100)		8260B		100	06/27/14 20:37	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 20:01	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD 2
Date Sampled: 06/19/14 07:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 20:01	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Ethylbenzene	**0.666** (0.100)		8260B		100	06/27/14 20:37	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Isopropylbenzene	**0.0436** (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Naphthalene	**3.57** (0.100)		8260B		100	06/27/14 20:37	CXF0361	CF42639
n-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
n-Propylbenzene	**0.0176** (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
sec-Butylbenzene	**0.0019** (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD 2
Date Sampled: 06/19/14 07:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Toluene	**0.0147** (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Xylene O	**0.143** (0.100)		8260B		100	06/27/14 20:37	CXF0361	CF42639
Xylene P,M	**0.0398** (0.0020)		8260B		1	06/26/14 20:01	CXF0361	CF42639
Xylenes (Total)	**0.183** (0.100)		8260B		100	06/27/14 20:37		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 20:01		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*83 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*104 %*		*70-130*
Surrogate: Dibromofluoromethane	*83 %*		*70-130*
Surrogate: Toluene-d8	*101 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-11
Date Sampled: 06/20/14 09:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/27/14 14:23	CXF0376	CF42734
1-Chlorohexane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
2-Butanone	ND (0.0100)		8260B		1	06/27/14 14:23	CXF0376	CF42734
2-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
2-Hexanone	ND (0.0100)		8260B		1	06/27/14 14:23	CXF0376	CF42734
4-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Acetone	ND (0.0100)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Benzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Bromobenzene	ND (0.0020)		8260B		1	06/27/14 14:23	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-11
Date Sampled: 06/20/14 09:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Bromodichloromethane	ND (0.0006)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Bromoform	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Bromomethane	ND (0.0020)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Carbon Disulfide	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Chlorobenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Chloroethane	ND (0.0020)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Chloroform	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Chloromethane	ND (0.0020)		8260B		1	06/27/14 14:23	CXF0376	CF42734
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Dibromochloromethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Dibromomethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Diethyl Ether	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Di-isopropyl ether	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Ethylbenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Hexachloroethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Isopropylbenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Methylene Chloride	ND (0.0020)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Naphthalene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
n-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
n-Propylbenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
sec-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Styrene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
tert-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Tetrachloroethene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-11
Date Sampled: 06/20/14 09:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Toluene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Trichloroethene	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Vinyl Acetate	ND (0.0050)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Vinyl Chloride	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Xylene O	ND (0.0010)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Xylene P,M	ND (0.0020)		8260B		1	06/27/14 14:23	CXF0376	CF42734
Xylenes (Total)	ND (0.0020)		8260B		1	06/27/14 14:23		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/27/14 14:23		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*84 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*84 %*		*70-130*
Surrogate: Toluene-d8	*99 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-7
Date Sampled: 06/20/14 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-14
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,2,4-Trimethylbenzene	**0.0560** (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,3,5-Trimethylbenzene	**0.0170** (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 18:54	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 18:54	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 18:54	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Benzene	**0.0351** (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 18:54	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-7
Date Sampled: 06/20/14 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-14
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 18:54	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Ethylbenzene	**0.116** (0.0500)		8260B		50	06/27/14 18:51	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Isopropylbenzene	**0.0062** (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Naphthalene	**2.42** (0.0500)		8260B		50	06/27/14 18:51	CXF0361	CF42639
n-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
n-Propylbenzene	**0.0016** (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
sec-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-7
Date Sampled: 06/20/14 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-14
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Toluene	**0.0266** (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Xylene O	**0.0955** (0.0500)		8260B		50	06/27/14 18:51	CXF0361	CF42639
Xylene P,M	**0.166** (0.0020)		8260B		1	06/26/14 18:54	CXF0361	CF42639
Xylenes (Total)	**0.262** (0.0500)		8260B		50	06/27/14 18:51		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 18:54		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*83 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*100 %*		*70-130*
Surrogate: Dibromofluoromethane	*83 %*		*70-130*
Surrogate: Toluene-d8	*101 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-13
Date Sampled: 06/20/14 10:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-15
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,2,4-Trimethylbenzene	**0.0018** (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/26/14 15:34	CXF0361	CF42639
1-Chlorohexane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
2-Butanone	ND (0.0100)		8260B		1	06/26/14 15:34	CXF0361	CF42639
2-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
2-Hexanone	ND (0.0100)		8260B		1	06/26/14 15:34	CXF0361	CF42639
4-Chlorotoluene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Acetone	ND (0.0100)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Benzene	**0.0025** (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Bromobenzene	ND (0.0020)		8260B		1	06/26/14 15:34	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-13
Date Sampled: 06/20/14 10:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-15
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Bromodichloromethane	ND (0.0006)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Bromoform	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Bromomethane	ND (0.0020)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Carbon Disulfide	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Chlorobenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Chloroethane	ND (0.0020)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Chloroform	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Chloromethane	ND (0.0020)		8260B		1	06/26/14 15:34	CXF0361	CF42639
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Dibromochloromethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Dibromomethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Diethyl Ether	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Di-isopropyl ether	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Ethylbenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Hexachloroethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Isopropylbenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Methylene Chloride	ND (0.0020)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Naphthalene	**0.0242** (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
n-Butylbenzene	**0.0028** (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
n-Propylbenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
sec-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Styrene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
tert-Butylbenzene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Tetrachloroethene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-13
Date Sampled: 06/20/14 10:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-15
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Toluene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Trichloroethene	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Vinyl Acetate	ND (0.0050)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Vinyl Chloride	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Xylene O	ND (0.0010)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Xylene P,M	ND (0.0020)		8260B		1	06/26/14 15:34	CXF0361	CF42639
Xylenes (Total)	ND (0.0020)		8260B		1	06/26/14 15:34		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/26/14 15:34		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*90 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*91 %*		*70-130*
Surrogate: Toluene-d8	*96 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-6
Date Sampled: 06/20/14 10:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-16
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/27/14 16:04	CXF0376	CF42734
1-Chlorohexane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
2-Butanone	ND (0.0100)		8260B		1	06/27/14 16:04	CXF0376	CF42734
2-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
2-Hexanone	ND (0.0100)		8260B		1	06/27/14 16:04	CXF0376	CF42734
4-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Acetone	ND (0.0100)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Benzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Bromobenzene	ND (0.0020)		8260B		1	06/27/14 16:04	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-6
Date Sampled: 06/20/14 10:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-16
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Bromodichloromethane	ND (0.0006)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Bromoform	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Bromomethane	ND (0.0020)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Carbon Disulfide	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Chlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Chloroethane	ND (0.0020)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Chloroform	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Chloromethane	ND (0.0020)		8260B		1	06/27/14 16:04	CXF0376	CF42734
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Dibromochloromethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Dibromomethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Diethyl Ether	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Di-isopropyl ether	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Ethylbenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Hexachloroethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Isopropylbenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Methylene Chloride	ND (0.0020)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Naphthalene	**0.0211** (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
n-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
n-Propylbenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
sec-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Styrene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
tert-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Tetrachloroethene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-6
Date Sampled: 06/20/14 10:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-16
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Toluene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Trichloroethene	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Vinyl Acetate	ND (0.0050)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Vinyl Chloride	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Xylene O	ND (0.0010)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Xylene P,M	ND (0.0020)		8260B		1	06/27/14 16:04	CXF0376	CF42734
Xylenes (Total)	ND (0.0020)		8260B		1	06/27/14 16:04		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/27/14 16:04		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*84 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*98 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*101 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-318D
Date Sampled: 06/20/14 11:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-17
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,2,4-Trimethylbenzene	**0.104** (0.100)		8260B		100	06/30/14 13:17	CXF0376	CF42734
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,3,5-Trimethylbenzene	**0.0351** (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/27/14 16:37	CXF0376	CF42734
1-Chlorohexane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
2-Butanone	ND (0.0100)		8260B		1	06/27/14 16:37	CXF0376	CF42734
2-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
2-Hexanone	ND (0.0100)		8260B		1	06/27/14 16:37	CXF0376	CF42734
4-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
4-Isopropyltoluene	**0.0011** (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Acetone	ND (0.0100)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Benzene	**1.82** (0.100)		8260B		100	06/30/14 13:17	CXF0376	CF42734
Bromobenzene	ND (0.0020)		8260B		1	06/27/14 16:37	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-318D
Date Sampled: 06/20/14 11:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-17
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Bromodichloromethane	ND (0.0006)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Bromoform	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Bromomethane	ND (0.0020)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Carbon Disulfide	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Chlorobenzene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Chloroethane	ND (0.0020)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Chloroform	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Chloromethane	ND (0.0020)		8260B		1	06/27/14 16:37	CXF0376	CF42734
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Dibromochloromethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Dibromomethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Diethyl Ether	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Di-isopropyl ether	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Ethylbenzene	**0.316** (0.100)		8260B		100	06/30/14 13:17	CXF0376	CF42734
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Hexachloroethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Isopropylbenzene	**0.0144** (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Methylene Chloride	ND (0.0020)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Naphthalene	**2.88** (0.100)		8260B		100	06/30/14 13:17	CXF0376	CF42734
n-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
n-Propylbenzene	**0.0027** (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
sec-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Styrene	**0.0044** (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
tert-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Tetrachloroethene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-318D
Date Sampled: 06/20/14 11:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-17
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Toluene	**0.156** (0.100)		8260B		100	06/30/14 13:17	CXF0376	CF42734
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Trichloroethene	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Vinyl Acetate	ND (0.0050)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Vinyl Chloride	ND (0.0010)		8260B		1	06/27/14 16:37	CXF0376	CF42734
Xylene O	**0.184** (0.100)		8260B		100	06/30/14 13:17	CXF0376	CF42734
Xylene P,M	**0.208** (0.200)		8260B		100	06/30/14 13:17	CXF0376	CF42734
Xylenes (Total)	**0.392** (0.200)		8260B		100	06/30/14 13:17		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/27/14 16:37		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*84 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*104 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*101 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-21
Date Sampled: 06/20/14 12:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-18
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,2,4-Trimethylbenzene	**0.216** (0.100)		8260B		100	06/30/14 13:50	CXF0376	CF42734
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,3,5-Trimethylbenzene	**0.0664** (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/27/14 17:11	CXF0376	CF42734
1-Chlorohexane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
2-Butanone	ND (0.0100)		8260B		1	06/27/14 17:11	CXF0376	CF42734
2-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
2-Hexanone	ND (0.0100)		8260B		1	06/27/14 17:11	CXF0376	CF42734
4-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
4-Isopropyltoluene	**0.0025** (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Acetone	ND (0.0100)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Benzene	**0.117** (0.100)		8260B		100	06/30/14 13:50	CXF0376	CF42734
Bromobenzene	ND (0.0020)		8260B		1	06/27/14 17:11	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-21
Date Sampled: 06/20/14 12:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-18
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Bromodichloromethane	ND (0.0006)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Bromoform	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Bromomethane	ND (0.0020)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Carbon Disulfide	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Chlorobenzene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Chloroethane	ND (0.0020)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Chloroform	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Chloromethane	ND (0.0020)		8260B		1	06/27/14 17:11	CXF0376	CF42734
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Dibromochloromethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Dibromomethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Diethyl Ether	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Di-isopropyl ether	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Ethylbenzene	**0.920** (0.100)		8260B		100	06/30/14 13:50	CXF0376	CF42734
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Hexachloroethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Isopropylbenzene	**0.0238** (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Methylene Chloride	ND (0.0020)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Naphthalene	**9.80** (0.100)		8260B		100	06/30/14 13:50	CXF0376	CF42734
n-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
n-Propylbenzene	**0.0056** (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
sec-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Styrene	**0.0242** (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
tert-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Tetrachloroethene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-21
Date Sampled: 06/20/14 12:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-18
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Toluene	**0.210** (0.100)		8260B		100	06/30/14 13:50	CXF0376	CF42734
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Trichloroethene	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Vinyl Acetate	ND (0.0050)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Vinyl Chloride	ND (0.0010)		8260B		1	06/27/14 17:11	CXF0376	CF42734
Xylene O	**0.540** (0.100)		8260B		100	06/30/14 13:50	CXF0376	CF42734
Xylene P,M	**0.802** (0.200)		8260B		100	06/30/14 13:50	CXF0376	CF42734
Xylenes (Total)	**1.34** (0.200)		8260B		100	06/30/14 13:50		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/27/14 17:11		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*82 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*106 %*		*70-130*
Surrogate: Dibromofluoromethane	*84 %*		*70-130*
Surrogate: Toluene-d8	*97 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank 061914
Date Sampled: 06/19/14 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-19
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/27/14 12:43	CXF0376	CF42734
1-Chlorohexane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
2-Butanone	ND (0.0100)		8260B		1	06/27/14 12:43	CXF0376	CF42734
2-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
2-Hexanone	ND (0.0100)		8260B		1	06/27/14 12:43	CXF0376	CF42734
4-Chlorotoluene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Acetone	ND (0.0100)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Benzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Bromobenzene	ND (0.0020)		8260B		1	06/27/14 12:43	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank 061914
Date Sampled: 06/19/14 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-19
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Bromodichloromethane	ND (0.0006)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Bromoform	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Bromomethane	ND (0.0020)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Carbon Disulfide	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Chlorobenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Chloroethane	ND (0.0020)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Chloroform	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Chloromethane	ND (0.0020)		8260B		1	06/27/14 12:43	CXF0376	CF42734
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Dibromochloromethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Dibromomethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Diethyl Ether	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Di-isopropyl ether	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Ethylbenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Hexachloroethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Isopropylbenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Methylene Chloride	ND (0.0020)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Naphthalene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
n-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
n-Propylbenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
sec-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Styrene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
tert-Butylbenzene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Tetrachloroethene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank 061914
Date Sampled: 06/19/14 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1406486
ESS Laboratory Sample ID: 1406486-19
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Toluene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Trichloroethene	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Vinyl Acetate	ND (0.0050)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Vinyl Chloride	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Xylene O	ND (0.0010)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Xylene P,M	ND (0.0020)		8260B		1	06/27/14 12:43	CXF0376	CF42734
Xylenes (Total)	ND (0.0020)		8260B		1	06/27/14 12:43		[CALC]
Trihalomethanes (Total)	ND (0.0036)		8260B			06/27/14 12:43		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*85 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*84 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42639 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42639 - 5030B										
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0226*		mg/L	*0.02500*		*90*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0221*		mg/L	*0.02500*		*88*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0236*		mg/L	*0.02500*		*95*	*70-130*			
Surrogate: Toluene-d8	*0.0233*		mg/L	*0.02500*		*93*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.81		ug/L	10.00		98	70-130			
1,1,1-Trichloroethane	10.6		ug/L	10.00		106	70-130			
1,1,2,2-Tetrachloroethane	10.2		ug/L	10.00		102	70-130			
1,1,2-Trichloroethane	10.1		ug/L	10.00		101	70-130			
1,1-Dichloroethane	9.53		ug/L	10.00		95	70-130			
1,1-Dichloroethene	10.1		ug/L	10.00		101	70-130			
1,1-Dichloropropene	10.6		ug/L	10.00		106	70-130			
1,2,3-Trichlorobenzene	10.3		ug/L	10.00		103	70-130			
1,2,3-Trichloropropane	9.75		ug/L	10.00		98	70-130			
1,2,4-Trichlorobenzene	10.2		ug/L	10.00		102	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42639 - 5030B										
1,2,4-Trimethylbenzene	9.70		ug/L	10.00		97	70-130			
1,2-Dibromo-3-Chloropropane	10.7		ug/L	10.00		107	70-130			
1,2-Dibromoethane	10.1		ug/L	10.00		101	70-130			
1,2-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,2-Dichloroethane	10.0		ug/L	10.00		100	70-130			
1,2-Dichloropropane	9.35		ug/L	10.00		94	70-130			
1,3,5-Trimethylbenzene	10.2		ug/L	10.00		102	70-130			
1,3-Dichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,3-Dichloropropane	9.67		ug/L	10.00		97	70-130			
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,4-Dioxane - Screen	266		ug/L	200.0		133	0-332			
1-Chlorohexane	9.63		ug/L	10.00		96	70-130			
2,2-Dichloropropane	10.3		ug/L	10.00		103	70-130			
2-Butanone	45.7		ug/L	50.00		91	70-130			
2-Chlorotoluene	10.8		ug/L	10.00		108	70-130			
2-Hexanone	51.8		ug/L	50.00		104	70-130			
4-Chlorotoluene	10.6		ug/L	10.00		106	70-130			
4-Isopropyltoluene	10.4		ug/L	10.00		104	70-130			
4-Methyl-2-Pentanone	49.6		ug/L	50.00		99	70-130			
Acetone	43.2		ug/L	50.00		86	70-130			
Benzene	9.63		ug/L	10.00		96	70-130			
Bromobenzene	10.0		ug/L	10.00		100	70-130			
Bromochloromethane	10.3		ug/L	10.00		103	70-130			
Bromodichloromethane	10.3		ug/L	10.00		103	70-130			
Bromoform	9.13		ug/L	10.00		91	70-130			
Bromomethane	9.59		ug/L	10.00		96	70-130			
Carbon Disulfide	9.23		ug/L	10.00		92	70-130			
Carbon Tetrachloride	10.4		ug/L	10.00		104	70-130			
Chlorobenzene	10.3		ug/L	10.00		103	70-130			
Chloroethane	8.37		ug/L	10.00		84	70-130			
Chloroform	9.77		ug/L	10.00		98	70-130			
Chloromethane	9.30		ug/L	10.00		93	70-130			
cis-1,2-Dichloroethene	10.3		ug/L	10.00		103	70-130			
cis-1,3-Dichloropropene	9.86		ug/L	10.00		99	70-130			
Dibromochloromethane	10.1		ug/L	10.00		101	70-130			
Dibromomethane	10.0		ug/L	10.00		100	70-130			
Dichlorodifluoromethane	9.32		ug/L	10.00		93	70-130			
Diethyl Ether	8.66		ug/L	10.00		87	70-130			
Di-isopropyl ether	9.12		ug/L	10.00		91	70-130			
Ethyl tertiary-butyl ether	9.26		ug/L	10.00		93	70-130			
Ethylbenzene	9.60		ug/L	10.00		96	70-130			
Hexachlorobutadiene	11.4		ug/L	10.00		114	70-130			
Hexachloroethane	10.5		ug/L	10.00		105	70-130			
Isopropylbenzene	10.4		ug/L	10.00		104	70-130			
Methyl tert-Butyl Ether	9.33		ug/L	10.00		93	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42639 - 5030B										
Methylene Chloride	10.2		ug/L	10.00		102	70-130			
Naphthalene	10.5		ug/L	10.00		105	70-130			
n-Butylbenzene	9.68		ug/L	10.00		97	70-130			
n-Propylbenzene	10.3		ug/L	10.00		103	70-130			
sec-Butylbenzene	10.7		ug/L	10.00		107	70-130			
Styrene	9.39		ug/L	10.00		94	70-130			
tert-Butylbenzene	10.4		ug/L	10.00		104	70-130			
Tertiary-amyl methyl ether	9.57		ug/L	10.00		96	70-130			
Tetrachloroethene	9.20		ug/L	10.00		92	70-130			
Tetrahydrofuran	9.24		ug/L	10.00		92	70-130			
Toluene	10.2		ug/L	10.00		102	70-130			
trans-1,2-Dichloroethene	10.4		ug/L	10.00		104	70-130			
trans-1,3-Dichloropropene	9.34		ug/L	10.00		93	70-130			
Trichloroethene	9.79		ug/L	10.00		98	70-130			
Trichlorofluoromethane	9.41		ug/L	10.00		94	70-130			
Vinyl Acetate	10.6		ug/L	10.00		106	70-130			
Vinyl Chloride	9.45		ug/L	10.00		94	70-130			
Xylene O	10.3		ug/L	10.00		103	70-130			
Xylene P,M	19.8		ug/L	20.00		99	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0238*		mg/L	*0.02500*		*95*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0244*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: Toluene-d8	*0.0237*		mg/L	*0.02500*		*95*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.80		ug/L	10.00		98	70-130	0.1	25	
1,1,1-Trichloroethane	10.5		ug/L	10.00		105	70-130	0.2	25	
1,1,2,2-Tetrachloroethane	9.86		ug/L	10.00		99	70-130	3	25	
1,1,2-Trichloroethane	9.91		ug/L	10.00		99	70-130	2	25	
1,1-Dichloroethane	9.66		ug/L	10.00		97	70-130	1	25	
1,1-Dichloroethene	10.2		ug/L	10.00		102	70-130	0.3	25	
1,1-Dichloropropene	10.5		ug/L	10.00		105	70-130	0.5	25	
1,2,3-Trichlorobenzene	9.92		ug/L	10.00		99	70-130	4	25	
1,2,3-Trichloropropane	9.78		ug/L	10.00		98	70-130	0.3	25	
1,2,4-Trichlorobenzene	9.66		ug/L	10.00		97	70-130	5	25	
1,2,4-Trimethylbenzene	9.45		ug/L	10.00		94	70-130	3	25	
1,2-Dibromo-3-Chloropropane	10.0		ug/L	10.00		100	70-130	7	25	
1,2-Dibromoethane	9.95		ug/L	10.00		100	70-130	2	25	
1,2-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	2	25	
1,2-Dichloroethane	10.1		ug/L	10.00		101	70-130	0.7	25	
1,2-Dichloropropane	9.48		ug/L	10.00		95	70-130	1	25	
1,3,5-Trimethylbenzene	10.1		ug/L	10.00		101	70-130	1	25	
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130	2	25	
1,3-Dichloropropane	9.92		ug/L	10.00		99	70-130	3	25	
1,4-Dichlorobenzene	9.96		ug/L	10.00		100	70-130	2	25	
1,4-Dioxane - Screen	211		ug/L	200.0		105	0-332	23	200	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42639 - 5030B										
1-Chlorohexane	9.24		ug/L	10.00		92	70-130	4	25	
2,2-Dichloropropane	10.2		ug/L	10.00		102	70-130	2	25	
2-Butanone	47.9		ug/L	50.00		96	70-130	5	25	
2-Chlorotoluene	10.5		ug/L	10.00		105	70-130	3	25	
2-Hexanone	50.9		ug/L	50.00		102	70-130	2	25	
4-Chlorotoluene	10.5		ug/L	10.00		105	70-130	1	25	
4-Isopropyltoluene	10.2		ug/L	10.00		102	70-130	2	25	
4-Methyl-2-Pentanone	48.4		ug/L	50.00		97	70-130	2	25	
Acetone	43.4		ug/L	50.00		87	70-130	0.3	25	
Benzene	9.71		ug/L	10.00		97	70-130	0.8	25	
Bromobenzene	9.87		ug/L	10.00		99	70-130	2	25	
Bromochloromethane	10.6		ug/L	10.00		106	70-130	4	25	
Bromodichloromethane	10.2		ug/L	10.00		102	70-130	0.5	25	
Bromoform	8.77		ug/L	10.00		88	70-130	4	25	
Bromomethane	9.57		ug/L	10.00		96	70-130	0.2	25	
Carbon Disulfide	9.60		ug/L	10.00		96	70-130	4	25	
Carbon Tetrachloride	10.4		ug/L	10.00		104	70-130	0.6	25	
Chlorobenzene	10.1		ug/L	10.00		101	70-130	3	25	
Chloroethane	8.44		ug/L	10.00		84	70-130	0.8	25	
Chloroform	9.68		ug/L	10.00		97	70-130	0.9	25	
Chloromethane	8.72		ug/L	10.00		87	70-130	6	25	
cis-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130	0.8	25	
cis-1,3-Dichloropropene	10.4		ug/L	10.00		104	70-130	5	25	
Dibromochloromethane	10.2		ug/L	10.00		102	70-130	0.9	25	
Dibromomethane	10.1		ug/L	10.00		101	70-130	0.3	25	
Dichlorodifluoromethane	9.04		ug/L	10.00		90	70-130	3	25	
Diethyl Ether	8.94		ug/L	10.00		89	70-130	3	25	
Di-isopropyl ether	9.25		ug/L	10.00		92	70-130	1	25	
Ethyl tertiary-butyl ether	9.25		ug/L	10.00		92	70-130	0.1	25	
Ethylbenzene	9.47		ug/L	10.00		95	70-130	1	25	
Hexachlorobutadiene	10.4		ug/L	10.00		104	70-130	9	25	
Hexachloroethane	10.1		ug/L	10.00		101	70-130	5	25	
Isopropylbenzene	10.1		ug/L	10.00		101	70-130	3	25	
Methyl tert-Butyl Ether	9.65		ug/L	10.00		96	70-130	3	25	
Methylene Chloride	9.83		ug/L	10.00		98	70-130	4	25	
Naphthalene	9.91		ug/L	10.00		99	70-130	6	25	
n-Butylbenzene	9.35		ug/L	10.00		94	70-130	3	25	
n-Propylbenzene	10.1		ug/L	10.00		101	70-130	2	25	
sec-Butylbenzene	10.4		ug/L	10.00		104	70-130	3	25	
Styrene	9.19		ug/L	10.00		92	70-130	2	25	
tert-Butylbenzene	10.3		ug/L	10.00		103	70-130	1	25	
Tertiary-amyl methyl ether	9.38		ug/L	10.00		94	70-130	2	25	
Tetrachloroethene	9.04		ug/L	10.00		90	70-130	2	25	
Tetrahydrofuran	8.95		ug/L	10.00		90	70-130	3	25	
Toluene	10.2		ug/L	10.00		102	70-130	0.2	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42639 - 5030B										
trans-1,2-Dichloroethene	9.92		ug/L	10.00		99	70-130	5	25	
trans-1,3-Dichloropropene	9.31		ug/L	10.00		93	70-130	0.3	25	
Trichloroethene	9.90		ug/L	10.00		99	70-130	1	25	
Trichlorofluoromethane	9.84		ug/L	10.00		98	70-130	4	25	
Vinyl Acetate	10.8		ug/L	10.00		108	70-130	2	25	
Vinyl Chloride	9.59		ug/L	10.00		96	70-130	1	25	
Xylene O	10.3		ug/L	10.00		103	70-130	0	25	
Xylene P,M	20.0		ug/L	20.00		100	70-130	1	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0250*		mg/L	*0.02500*		*100*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0233*		mg/L	*0.02500*		*93*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0253*		mg/L	*0.02500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.0244*		mg/L	*0.02500*		*97*	*70-130*			
Batch CF42734 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42734 - 5030B										
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0212*		mg/L	*0.02500*		*85*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42734 - 5030B										
Surrogate: Dibromofluoromethane	*0.0209*		mg/L	*0.02500*		*84*	*70-130*			
Surrogate: Toluene-d8	*0.0254*		mg/L	*0.02500*		*101*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.19		ug/L	10.00		92	70-130			
1,1,1-Trichloroethane	8.96		ug/L	10.00		90	70-130			
1,1,2,2-Tetrachloroethane	9.39		ug/L	10.00		94	70-130			
1,1,2-Trichloroethane	9.86		ug/L	10.00		99	70-130			
1,1-Dichloroethane	10.3		ug/L	10.00		103	70-130			
1,1-Dichloroethene	9.59		ug/L	10.00		96	70-130			
1,1-Dichloropropene	11.0		ug/L	10.00		110	70-130			
1,2,3-Trichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,2,3-Trichloropropane	9.38		ug/L	10.00		94	70-130			
1,2,4-Trichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,2,4-Trimethylbenzene	9.30		ug/L	10.00		93	70-130			
1,2-Dibromo-3-Chloropropane	9.68		ug/L	10.00		97	70-130			
1,2-Dibromoethane	9.03		ug/L	10.00		90	70-130			
1,2-Dichlorobenzene	9.66		ug/L	10.00		97	70-130			
1,2-Dichloroethane	8.72		ug/L	10.00		87	70-130			
1,2-Dichloropropane	11.0		ug/L	10.00		110	70-130			
1,3,5-Trimethylbenzene	9.53		ug/L	10.00		95	70-130			
1,3-Dichlorobenzene	9.64		ug/L	10.00		96	70-130			
1,3-Dichloropropane	10.3		ug/L	10.00		103	70-130			
1,4-Dichlorobenzene	8.92		ug/L	10.00		89	70-130			
1,4-Dioxane - Screen	250		ug/L	200.0		125	0-332			
1-Chlorohexane	10.1		ug/L	10.00		101	70-130			
2,2-Dichloropropane	9.15		ug/L	10.00		92	70-130			
2-Butanone	55.0		ug/L	50.00		110	70-130			
2-Chlorotoluene	10.0		ug/L	10.00		100	70-130			
2-Hexanone	64.2		ug/L	50.00		128	70-130			
4-Chlorotoluene	10.0		ug/L	10.00		100	70-130			
4-Isopropyltoluene	9.33		ug/L	10.00		93	70-130			
4-Methyl-2-Pentanone	58.1		ug/L	50.00		116	70-130			
Acetone	67.5		ug/L	50.00		135	70-130			B+
Benzene	10.0		ug/L	10.00		100	70-130			
Bromobenzene	9.25		ug/L	10.00		92	70-130			
Bromochloromethane	8.98		ug/L	10.00		90	70-130			
Bromodichloromethane	9.13		ug/L	10.00		91	70-130			
Bromoform	8.77		ug/L	10.00		88	70-130			
Bromomethane	8.34		ug/L	10.00		83	70-130			
Carbon Disulfide	9.74		ug/L	10.00		97	70-130			
Carbon Tetrachloride	9.22		ug/L	10.00		92	70-130			
Chlorobenzene	9.43		ug/L	10.00		94	70-130			
Chloroethane	8.42		ug/L	10.00		84	70-130			
Chloroform	8.66		ug/L	10.00		87	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42734 - 5030B										
Chloromethane	9.91		ug/L	10.00		99	70-130			
cis-1,2-Dichloroethene	9.55		ug/L	10.00		96	70-130			
cis-1,3-Dichloropropene	10.7		ug/L	10.00		107	70-130			
Dibromochloromethane	9.73		ug/L	10.00		97	70-130			
Dibromomethane	8.83		ug/L	10.00		88	70-130			
Dichlorodifluoromethane	7.63		ug/L	10.00		76	70-130			
Diethyl Ether	11.3		ug/L	10.00		113	70-130			
Di-isopropyl ether	12.1		ug/L	10.00		121	70-130			
Ethyl tertiary-butyl ether	10.7		ug/L	10.00		107	70-130			
Ethylbenzene	10.2		ug/L	10.00		102	70-130			
Hexachlorobutadiene	10.6		ug/L	10.00		106	70-130			
Hexachloroethane	9.65		ug/L	10.00		96	70-130			
Isopropylbenzene	9.57		ug/L	10.00		96	70-130			
Methyl tert-Butyl Ether	10.0		ug/L	10.00		100	70-130			
Methylene Chloride	9.43		ug/L	10.00		94	70-130			
Naphthalene	11.3		ug/L	10.00		113	70-130			
n-Butylbenzene	9.63		ug/L	10.00		96	70-130			
n-Propylbenzene	10.1		ug/L	10.00		101	70-130			
sec-Butylbenzene	9.83		ug/L	10.00		98	70-130			
Styrene	9.22		ug/L	10.00		92	70-130			
tert-Butylbenzene	9.71		ug/L	10.00		97	70-130			
Tertiary-amyl methyl ether	10.5		ug/L	10.00		105	70-130			
Tetrachloroethene	8.87		ug/L	10.00		89	70-130			
Tetrahydrofuran	11.9		ug/L	10.00		119	70-130			
Toluene	9.52		ug/L	10.00		95	70-130			
trans-1,2-Dichloroethene	9.22		ug/L	10.00		92	70-130			
trans-1,3-Dichloropropene	9.40		ug/L	10.00		94	70-130			
Trichloroethene	8.94		ug/L	10.00		89	70-130			
Trichlorofluoromethane	8.13		ug/L	10.00		81	70-130			
Vinyl Acetate	14.0		ug/L	10.00		140	70-130			B+
Vinyl Chloride	9.93		ug/L	10.00		99	70-130			
Xylene O	10.3		ug/L	10.00		103	70-130			
Xylene P,M	19.6		ug/L	20.00		98	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0223*		mg/L	*0.02500*		*89*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0242*		mg/L	*0.02500*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0226*		mg/L	*0.02500*		*91*	*70-130*			
Surrogate: Toluene-d8	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.16		ug/L	10.00		92	70-130	0.3	25	
1,1,1-Trichloroethane	8.84		ug/L	10.00		88	70-130	1	25	
1,1,2,2-Tetrachloroethane	9.46		ug/L	10.00		95	70-130	0.7	25	
1,1,2-Trichloroethane	9.78		ug/L	10.00		98	70-130	0.8	25	
1,1-Dichloroethane	10.0		ug/L	10.00		100	70-130	2	25	
1,1-Dichloroethene	9.37		ug/L	10.00		94	70-130	2	25	
1,1-Dichloropropene	10.6		ug/L	10.00		106	70-130	3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42734 - 5030B										
1,2,3-Trichlorobenzene	9.29		ug/L	10.00		93	70-130	10	25	
1,2,3-Trichloropropane	10.3		ug/L	10.00		103	70-130	9	25	
1,2,4-Trichlorobenzene	9.25		ug/L	10.00		92	70-130	10	25	
1,2,4-Trimethylbenzene	8.98		ug/L	10.00		90	70-130	4	25	
1,2-Dibromo-3-Chloropropane	9.87		ug/L	10.00		99	70-130	2	25	
1,2-Dibromoethane	9.14		ug/L	10.00		91	70-130	1	25	
1,2-Dichlorobenzene	9.33		ug/L	10.00		93	70-130	3	25	
1,2-Dichloroethane	8.79		ug/L	10.00		88	70-130	0.8	25	
1,2-Dichloropropane	10.7		ug/L	10.00		107	70-130	2	25	
1,3,5-Trimethylbenzene	9.41		ug/L	10.00		94	70-130	1	25	
1,3-Dichlorobenzene	9.37		ug/L	10.00		94	70-130	3	25	
1,3-Dichloropropane	10.6		ug/L	10.00		106	70-130	2	25	
1,4-Dichlorobenzene	8.79		ug/L	10.00		88	70-130	1	25	
1,4-Dioxane - Screen	204		ug/L	200.0		102	0-332	20	200	
1-Chlorohexane	10.2		ug/L	10.00		102	70-130	0.6	25	
2,2-Dichloropropane	9.05		ug/L	10.00		90	70-130	1	25	
2-Butanone	48.6		ug/L	50.00		97	70-130	12	25	
2-Chlorotoluene	10.0		ug/L	10.00		100	70-130	0.4	25	
2-Hexanone	60.9		ug/L	50.00		122	70-130	5	25	
4-Chlorotoluene	9.84		ug/L	10.00		98	70-130	2	25	
4-Isopropyltoluene	9.17		ug/L	10.00		92	70-130	2	25	
4-Methyl-2-Pentanone	58.4		ug/L	50.00		117	70-130	0.4	25	
Acetone	48.1		ug/L	50.00		96	70-130	34	25	D+
Benzene	9.87		ug/L	10.00		99	70-130	2	25	
Bromobenzene	9.08		ug/L	10.00		91	70-130	2	25	
Bromochloromethane	9.00		ug/L	10.00		90	70-130	0.2	25	
Bromodichloromethane	9.26		ug/L	10.00		93	70-130	1	25	
Bromoform	8.83		ug/L	10.00		88	70-130	0.7	25	
Bromomethane	9.23		ug/L	10.00		92	70-130	10	25	
Carbon Disulfide	9.76		ug/L	10.00		98	70-130	0.2	25	
Carbon Tetrachloride	9.32		ug/L	10.00		93	70-130	1	25	
Chlorobenzene	9.61		ug/L	10.00		96	70-130	2	25	
Chloroethane	8.69		ug/L	10.00		87	70-130	3	25	
Chloroform	8.91		ug/L	10.00		89	70-130	3	25	
Chloromethane	9.51		ug/L	10.00		95	70-130	4	25	
cis-1,2-Dichloroethene	9.51		ug/L	10.00		95	70-130	0.4	25	
cis-1,3-Dichloropropene	10.6		ug/L	10.00		106	70-130	1	25	
Dibromochloromethane	9.57		ug/L	10.00		96	70-130	2	25	
Dibromomethane	8.76		ug/L	10.00		88	70-130	0.8	25	
Dichlorodifluoromethane	7.79		ug/L	10.00		78	70-130	2	25	
Diethyl Ether	11.4		ug/L	10.00		114	70-130	1	25	
Di-isopropyl ether	12.1		ug/L	10.00		121	70-130	0.2	25	
Ethyl tertiary-butyl ether	10.6		ug/L	10.00		106	70-130	1	25	
Ethylbenzene	10.1		ug/L	10.00		101	70-130	1	25	
Hexachlorobutadiene	9.87		ug/L	10.00		99	70-130	7	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF42734 - 5030B										
Hexachloroethane	9.04		ug/L	10.00		90	70-130	7	25	
Isopropylbenzene	9.48		ug/L	10.00		95	70-130	0.9	25	
Methyl tert-Butyl Ether	10.3		ug/L	10.00		103	70-130	2	25	
Methylene Chloride	9.68		ug/L	10.00		97	70-130	3	25	
Naphthalene	10.6		ug/L	10.00		106	70-130	6	25	
n-Butylbenzene	9.23		ug/L	10.00		92	70-130	4	25	
n-Propylbenzene	9.88		ug/L	10.00		99	70-130	2	25	
sec-Butylbenzene	9.72		ug/L	10.00		97	70-130	1	25	
Styrene	9.22		ug/L	10.00		92	70-130	0	25	
tert-Butylbenzene	9.74		ug/L	10.00		97	70-130	0.3	25	
Tertiary-amyl methyl ether	10.3		ug/L	10.00		103	70-130	1	25	
Tetrachloroethene	8.99		ug/L	10.00		90	70-130	1	25	
Tetrahydrofuran	11.2		ug/L	10.00		112	70-130	6	25	
Toluene	9.54		ug/L	10.00		95	70-130	0.2	25	
trans-1,2-Dichloroethene	9.42		ug/L	10.00		94	70-130	2	25	
trans-1,3-Dichloropropene	9.67		ug/L	10.00		97	70-130	3	25	
Trichloroethene	9.08		ug/L	10.00		91	70-130	2	25	
Trichlorofluoromethane	8.48		ug/L	10.00		85	70-130	4	25	
Vinyl Acetate	13.4		ug/L	10.00		134	70-130	4	25	B+
Vinyl Chloride	9.92		ug/L	10.00		99	70-130	0.1	25	
Xylene O	10.2		ug/L	10.00		102	70-130	0.9	25	
Xylene P,M	19.7		ug/L	20.00		98	70-130	0.4	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0229*		mg/L	*0.02500*		*91*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0228*		mg/L	*0.02500*		*91*	*70-130*			
Surrogate: Toluene-d8	*0.0257*		mg/L	*0.02500*		*103*	*70-130*			
Batch CG40141 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CG40141 - 5030B										
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CG40141 - 5030B										
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0212*		mg/L	*0.02500*		*85*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0244*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0215*		mg/L	*0.02500*		*86*	*70-130*			
Surrogate: Toluene-d8	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.52		ug/L	10.00		95	70-130			
1,1,1-Trichloroethane	9.40		ug/L	10.00		94	70-130			
1,1,2,2-Tetrachloroethane	9.32		ug/L	10.00		93	70-130			
1,1,2-Trichloroethane	9.57		ug/L	10.00		96	70-130			
1,1-Dichloroethane	10.5		ug/L	10.00		105	70-130			
1,1-Dichloroethene	9.52		ug/L	10.00		95	70-130			
1,1-Dichloropropene	10.9		ug/L	10.00		109	70-130			
1,2,3-Trichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,2,3-Trichloropropane	9.91		ug/L	10.00		99	70-130			
1,2,4-Trichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,2,4-Trimethylbenzene	9.75		ug/L	10.00		98	70-130			
1,2-Dibromo-3-Chloropropane	9.84		ug/L	10.00		98	70-130			
1,2-Dibromoethane	9.14		ug/L	10.00		91	70-130			
1,2-Dichlorobenzene	9.54		ug/L	10.00		95	70-130			
1,2-Dichloroethane	9.01		ug/L	10.00		90	70-130			
1,2-Dichloropropane	11.3		ug/L	10.00		113	70-130			
1,3,5-Trimethylbenzene	9.77		ug/L	10.00		98	70-130			
1,3-Dichlorobenzene	9.78		ug/L	10.00		98	70-130			
1,3-Dichloropropane	10.4		ug/L	10.00		104	70-130			
1,4-Dichlorobenzene	9.08		ug/L	10.00		91	70-130			
1,4-Dioxane - Screen	245		ug/L	200.0		123	0-332			
1-Chlorohexane	10.3		ug/L	10.00		103	70-130			
2,2-Dichloropropane	10.3		ug/L	10.00		103	70-130			
2-Butanone	55.7		ug/L	50.00		111	70-130			
2-Chlorotoluene	10.1		ug/L	10.00		101	70-130			
2-Hexanone	65.3		ug/L	50.00		131	70-130			
4-Chlorotoluene	10.0		ug/L	10.00		100	70-130			
4-Isopropyltoluene	10.0		ug/L	10.00		100	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CG40141 - 5030B										
4-Methyl-2-Pentanone	56.1		ug/L	50.00		112	70-130			
Acetone	65.0		ug/L	50.00		130	70-130			
Benzene	10.1		ug/L	10.00		101	70-130			
Bromobenzene	9.28		ug/L	10.00		93	70-130			
Bromochloromethane	9.21		ug/L	10.00		92	70-130			
Bromodichloromethane	9.44		ug/L	10.00		94	70-130			
Bromoform	8.64		ug/L	10.00		86	70-130			
Bromomethane	8.93		ug/L	10.00		89	70-130			
Carbon Disulfide	9.78		ug/L	10.00		98	70-130			
Carbon Tetrachloride	9.44		ug/L	10.00		94	70-130			
Chlorobenzene	9.50		ug/L	10.00		95	70-130			
Chloroethane	8.90		ug/L	10.00		89	70-130			
Chloroform	9.21		ug/L	10.00		92	70-130			
Chloromethane	9.64		ug/L	10.00		96	70-130			
cis-1,2-Dichloroethene	9.81		ug/L	10.00		98	70-130			
cis-1,3-Dichloropropene	11.2		ug/L	10.00		112	70-130			
Dibromochloromethane	9.69		ug/L	10.00		97	70-130			
Dibromomethane	9.01		ug/L	10.00		90	70-130			
Dichlorodifluoromethane	7.41		ug/L	10.00		74	70-130			
Diethyl Ether	11.1		ug/L	10.00		111	70-130			
Di-isopropyl ether	11.8		ug/L	10.00		118	70-130			
Ethyl tertiary-butyl ether	10.8		ug/L	10.00		108	70-130			
Ethylbenzene	9.97		ug/L	10.00		100	70-130			
Hexachlorobutadiene	11.0		ug/L	10.00		110	70-130			
Hexachloroethane	9.85		ug/L	10.00		98	70-130			
Isopropylbenzene	9.88		ug/L	10.00		99	70-130			
Methyl tert-Butyl Ether	10.2		ug/L	10.00		102	70-130			
Methylene Chloride	9.59		ug/L	10.00		96	70-130			
Naphthalene	11.1		ug/L	10.00		111	70-130			
n-Butylbenzene	10.5		ug/L	10.00		105	70-130			
n-Propylbenzene	10.2		ug/L	10.00		102	70-130			
sec-Butylbenzene	10.2		ug/L	10.00		102	70-130			
Styrene	9.51		ug/L	10.00		95	70-130			
tert-Butylbenzene	9.96		ug/L	10.00		100	70-130			
Tertiary-amyl methyl ether	11.0		ug/L	10.00		110	70-130			
Tetrachloroethene	8.53		ug/L	10.00		85	70-130			
Tetrahydrofuran	12.4		ug/L	10.00		124	70-130			
Toluene	9.84		ug/L	10.00		98	70-130			
trans-1,2-Dichloroethene	9.50		ug/L	10.00		95	70-130			
trans-1,3-Dichloropropene	9.81		ug/L	10.00		98	70-130			
Trichloroethene	9.03		ug/L	10.00		90	70-130			
Trichlorofluoromethane	6.78		ug/L	10.00		68	70-130			
Vinyl Acetate	13.3		ug/L	10.00		133	70-130			
Vinyl Chloride	9.75		ug/L	10.00		98	70-130			
Xylene O	10.2		ug/L	10.00		102	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CG40141 - 5030B										
Xylene P,M	20.1		ug/L	20.00		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0222*		mg/L	*0.02500*		*89*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0245*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0236*		mg/L	*0.02500*		*95*	*70-130*			
Surrogate: Toluene-d8	*0.0253*		mg/L	*0.02500*		*101*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	8.85		ug/L	10.00		88	70-130	7	25	
1,1,1-Trichloroethane	9.19		ug/L	10.00		92	70-130	2	25	
1,1,2,2-Tetrachloroethane	9.24		ug/L	10.00		92	70-130	0.9	25	
1,1,2-Trichloroethane	9.51		ug/L	10.00		95	70-130	0.6	25	
1,1-Dichloroethane	9.95		ug/L	10.00		100	70-130	6	25	
1,1-Dichloroethene	9.17		ug/L	10.00		92	70-130	4	25	
1,1-Dichloropropene	10.5		ug/L	10.00		105	70-130	4	25	
1,2,3-Trichlorobenzene	10.0		ug/L	10.00		100	70-130	5	25	
1,2,3-Trichloropropane	9.40		ug/L	10.00		94	70-130	5	25	
1,2,4-Trichlorobenzene	9.81		ug/L	10.00		98	70-130	6	25	
1,2,4-Trimethylbenzene	9.49		ug/L	10.00		95	70-130	3	25	
1,2-Dibromo-3-Chloropropane	10.1		ug/L	10.00		101	70-130	3	25	
1,2-Dibromoethane	8.91		ug/L	10.00		89	70-130	3	25	
1,2-Dichlorobenzene	9.42		ug/L	10.00		94	70-130	1	25	
1,2-Dichloroethane	8.46		ug/L	10.00		85	70-130	6	25	
1,2-Dichloropropane	10.6		ug/L	10.00		106	70-130	7	25	
1,3,5-Trimethylbenzene	9.79		ug/L	10.00		98	70-130	0.2	25	
1,3-Dichlorobenzene	9.44		ug/L	10.00		94	70-130	4	25	
1,3-Dichloropropane	9.92		ug/L	10.00		99	70-130	5	25	
1,4-Dichlorobenzene	8.75		ug/L	10.00		88	70-130	4	25	
1,4-Dioxane - Screen	203		ug/L	200.0		101	0-332	19	200	
1-Chlorohexane	9.83		ug/L	10.00		98	70-130	5	25	
2,2-Dichloropropane	9.45		ug/L	10.00		94	70-130	8	25	
2-Butanone	42.4		ug/L	50.00		85	70-130	27	25	
2-Chlorotoluene	9.93		ug/L	10.00		99	70-130	2	25	
2-Hexanone	59.5		ug/L	50.00		119	70-130	9	25	
4-Chlorotoluene	9.63		ug/L	10.00		96	70-130	4	25	
4-Isopropyltoluene	9.60		ug/L	10.00		96	70-130	4	25	
4-Methyl-2-Pentanone	55.6		ug/L	50.00		111	70-130	0.9	25	
Acetone	44.7		ug/L	50.00		89	70-130	37	25	
Benzene	9.66		ug/L	10.00		97	70-130	4	25	
Bromobenzene	9.31		ug/L	10.00		93	70-130	0.3	25	
Bromochloromethane	9.08		ug/L	10.00		91	70-130	1	25	
Bromodichloromethane	9.37		ug/L	10.00		94	70-130	0.7	25	
Bromoform	8.52		ug/L	10.00		85	70-130	1	25	
Bromomethane	8.95		ug/L	10.00		90	70-130	0.2	25	
Carbon Disulfide	9.36		ug/L	10.00		94	70-130	4	25	
Carbon Tetrachloride	9.28		ug/L	10.00		93	70-130	2	25	
Chlorobenzene	9.11		ug/L	10.00		91	70-130	4	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CG40141 - 5030B										
Chloroethane	7.85		ug/L	10.00		78	70-130	13	25	
Chloroform	8.56		ug/L	10.00		86	70-130	7	25	
Chloromethane	9.28		ug/L	10.00		93	70-130	4	25	
cis-1,2-Dichloroethene	9.32		ug/L	10.00		93	70-130	5	25	
cis-1,3-Dichloropropene	10.4		ug/L	10.00		104	70-130	7	25	
Dibromochloromethane	9.27		ug/L	10.00		93	70-130	4	25	
Dibromomethane	8.59		ug/L	10.00		86	70-130	5	25	
Dichlorodifluoromethane	7.16		ug/L	10.00		72	70-130	3	25	
Diethyl Ether	10.6		ug/L	10.00		106	70-130	5	25	
Di-isopropyl ether	11.1		ug/L	10.00		111	70-130	7	25	
Ethyl tertiary-butyl ether	10.6		ug/L	10.00		106	70-130	3	25	
Ethylbenzene	9.47		ug/L	10.00		95	70-130	5	25	
Hexachlorobutadiene	10.0		ug/L	10.00		100	70-130	9	25	
Hexachloroethane	9.90		ug/L	10.00		99	70-130	0.5	25	
Isopropylbenzene	9.69		ug/L	10.00		97	70-130	2	25	
Methyl tert-Butyl Ether	9.85		ug/L	10.00		98	70-130	4	25	
Methylene Chloride	9.43		ug/L	10.00		94	70-130	2	25	
Naphthalene	10.8		ug/L	10.00		108	70-130	3	25	
n-Butylbenzene	9.96		ug/L	10.00		100	70-130	5	25	
n-Propylbenzene	9.91		ug/L	10.00		99	70-130	2	25	
sec-Butylbenzene	9.81		ug/L	10.00		98	70-130	4	25	
Styrene	9.09		ug/L	10.00		91	70-130	5	25	
tert-Butylbenzene	9.84		ug/L	10.00		98	70-130	1	25	
Tertiary-amyl methyl ether	10.4		ug/L	10.00		104	70-130	5	25	
Tetrachloroethene	8.30		ug/L	10.00		83	70-130	3	25	
Tetrahydrofuran	12.2		ug/L	10.00		122	70-130	1	25	
Toluene	9.23		ug/L	10.00		92	70-130	6	25	
trans-1,2-Dichloroethene	8.89		ug/L	10.00		89	70-130	7	25	
trans-1,3-Dichloropropene	9.41		ug/L	10.00		94	70-130	4	25	
Trichloroethene	8.82		ug/L	10.00		88	70-130	2	25	
Trichlorofluoromethane	8.18		ug/L	10.00		82	70-130	19	25	
Vinyl Acetate	13.4		ug/L	10.00		134	70-130	1	25	
Vinyl Chloride	9.31		ug/L	10.00		93	70-130	5	25	
Xylene O	9.74		ug/L	10.00		97	70-130	5	25	
Xylene P,M	18.7		ug/L	20.00		94	70-130	7	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0230*		mg/L	*0.02500*		*92*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0242*		mg/L	*0.02500*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0225*		mg/L	*0.02500*		*90*	*70-130*			
Surrogate: Toluene-d8	*0.0252*		mg/L	*0.02500*		*101*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

Notes and Definitions

U	Analyte included in the analysis, but not detected
D+	Relative percent difference for duplicate is outside of criteria (D+).
D	Diluted.
C+	Continuing Calibration recovery is above upper control limit (C+).
B+	Blank Spike recovery is above upper control limit (B+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1406486

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: GZA GeoEnviromental Inc
Client Project ID: _____
Shipped/Delivered Via: Client

ESS Project ID: 14060486
Date Project Due: 6/27/14
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	No
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: **4.1**		16. Are ESS labels on correct containers?	Yes | No
Iced With: **Ice**		17. Were samples received intact?	Yes | No
6. Was COC included with samples?	Yes	ESS Sample IDs: _____	
7. Was COC signed and dated by client?	Yes	Sub Lab: _____	
8. Does the COC match the sample	Yes	Analysis: _____	
9. Is COC complete and correct?	Yes	TAT: _____	

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?:_____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	40 ml - VOA	3	HCL
2	Yes	40 ml - VOA	3	HCL
3	Yes	40 ml - VOA	3	HCL
4	Yes	40 ml - VOA	3	HCL
5	Yes	40 ml - VOA	3	HCL
6	Yes	40 ml - VOA	3	HCL
7	Yes	40 ml - VOA	3	HCL
8	Yes	40 ml - VOA	3	HCL
9	Yes	40 ml - VOA	3	HCL
10	Yes	40 ml - VOA	3	HCL
11	Yes	40 ml - VOA	3	HCL
12	Yes	40 ml - VOA	3	HCL
13	Yes	40 ml - VOA	3	HCL
14	Yes	40 ml - VOA	3	HCL
15	Yes	40 ml - VOA	3	HCL
16	Yes	40 ml - VOA	3	HCL
17	Yes	40 ml - VOA	3	HCL
18	Yes	40 ml - VOA	3	HCL
19	Yes	40 ml - VOA	3 → 1 6/20/14	HCL

Completed By: JOC Date/Time: 6/20/14 2245
Reviewed By: _____ Date/Time: 6/23/14 1125

014060486-19
Preservative: HCL
0100000000609008

014060486-19
Preservative: HCL
0100000000609009

← Unused labels

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time: X Standard Other ____
If faster than 5 days, prior approval by laboratory is required # ____

State where samples were collected from:
MA (RI) CT NH NJ NY ME Other ____

Is this project for any of the following:
MA-MCP Navy USACE Other ____

Reporting Limits: RIDEM GB

ESS LAB PROJECT ID: 1406486

Electronic Deliverable: Yes X No ____

Format: Excel X Access ____ PDF X Other ____

Co. Name	Project #	Project Name (20 Char. or less)
GZA	33554	642 ALLENS AVE

Contact Person	Address
Meg KILPATRICK	530 BROADWAY

City	State	Zip	PO#
PROVIDENCE	RI	02904	

Telephone #	Fax #	Email Address
401-421-4140		mkilpatrick@gza.com

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	Write Required Analysis: VOCs	Write Required Analysis: 8260B
1	6/19/14	9:15			GW	VHB-13	2	3	V	X	
2		12:00				GZ-315D					
3		10:20				RCA-36					
4		12:15				GZ-314D					
5		12:30				GZ-314S					
6		12:40				RCA-5					
7		13:40				RCA-22					
8		13:42				RCA-38					
9		14:50				VHB-20					
10		15:00				GZ-319D					

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: Yes ____ No

Seals Intact: ____ Yes ____ No NA: ✓

Cooler Temp: 4.1°C Ice

Internal Use Only
[ ] Pickup
[ ] Technicians ____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- ____

Sampled by: SOPHIA NAKIEWICZ ERIK BELOFF

Comments: NORMAL RATES APPLY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/20/14 1400	[signature]	6/20/14 14:00				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A

ESS Laboratory

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Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time: X Standard Other ____
If faster than 5 days, prior approval by laboratory is required # ____

State where samples were collected from:
MA (RI) CT NH NJ NY ME Other ____

Is this project for any of the following:
MA-MCP Navy USACE Other ____

Reporting Limits: RIDEM GB

ESS LAB PROJECT ID: 1406486

Electronic Deliverable: Yes X No ____

Format: Excel X Access ____ PDF X Other ____

Co. Name	Project #	Project Name (20 Char. or less)
GZA	33554	642 Allens Ave

Contact Person	Address
Meg Kilpatrick	530 Broadway

City	State	Zip	PO#
Providence	RI	02904	

Telephone #	Fax #	Email Address
401-421-4140		mkilpatrick@gza.com

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	Write Required Analysis: VOCs 8260B
11	6/19/14	15:25			GW	RCA-28	2	3	V	X
12	↓	7:00				BDH2	↓	3	↓	↓
13	↓	7:00				TRIP BLANK-61914		1		
14	6/20/14	9:15				RCA-11		3		
15		10:00				VHB-7				
16		10:40				RCA-13				
17		10:50				VHB-6				
18		11:25				GZ-3180				
19	↓	12:00				VHB-21	↓	↓	↓	↓
20										

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: ✓ Yes ___ No

Seals Intact: ___ Yes ___ No NA: ✓

Cooler Temp: 4.1°C 6/20/14 14:00

Internal Use Only
[ ] Pickup
[ ] Technicians ____

Preservation Code: 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- ____

Sampled by: Sophia Narkiewicz Emil Beloff

Comments: NORMAL RATES APPLY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/20/14 1400	[signature]	6/21/14 14:00				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A

CERTIFICATE OF ANALYSIS

Meg Kilpatrick
GZA GeoEnvironmental, Inc.
530 Broadway
Providence, RI 02909

RE: 642 Allens Ave (03.0033554.00)
ESS Laboratory Work Order Number: 1510463

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 1:46 pm, Oct 27, 2015

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

SAMPLE RECEIPT

The following samples were received on October 16, 2015 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1510463-01	VHB-21	Ground Water	8260B
1510463-02	GZ-301D	Ground Water	8260B
1510463-03	GZ-304D	Ground Water	8260B
1510463-04	GZ-309D	Ground Water	8260B
1510463-05	GZA-314S	Ground Water	8260B
1510463-06	GZ-314D	Ground Water	8260B
1510463-07	BD101615	Ground Water	8260B
1510463-08	RCA-28	Ground Water	8260B

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

PROJECT NARRATIVE

8260B Volatile Organic Compounds

1510463-02	**Present in Method Blank (B).**
	Naphthalene
1510463-03	**Present in Method Blank (B).**
	Naphthalene
1510463-04	**Present in Method Blank (B).**
	Naphthalene
1510463-08	**Present in Method Blank (B).**
	Acetone
1510463-08	**Reported above the quantitation limit; Estimated value (E).**
	1,2,4-Trimethylbenzene , Xylene P,M
CJ52048-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (60% @ 70-130%)
CJ52048-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (53% @ 70-130%)
CJ52153-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (137% @ 70-130%)
CJ52153-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (63% @ 70-130%)
CJ52153-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (136% @ 70-130%)
CJ52153-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (62% @ 70-130%)
CJ52253-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (136% @ 70-130%)
CJ52253-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (51% @ 70-130%)
CJ52253-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (134% @ 70-130%)
CJ52253-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (51% @ 70-130%)
CJ52344-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (134% @ 70-130%)
CJ52344-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (63% @ 70-130%)
CJ52344-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (62% @ 70-130%)
CYJ0261-CCV1	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	Bromomethane (52% @ 30%), Tertiary-amyl methyl ether (31% @ 30%)
CYJ0277-CCV1	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	Bromomethane (43% @ 30%)

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1510463

CYJ0296-CCV1 **Continuing Calibration %Diff/Drift is below control limit (CD-).**
Bromomethane (59% @ 30%)

CYJ0319-CCV1 **Continuing Calibration %Diff/Drift is below control limit (CD-).**
Bromomethane (45% @ 30%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-21
Date Sampled: 10/15/15 09:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,1,1-Trichloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,1,2,2-Tetrachloroethane	ND (0.0500)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,1,2-Trichloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,1-Dichloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,1-Dichloroethene	ND (0.100)	0.0300	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,1-Dichloropropene	ND (0.200)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,2,3-Trichlorobenzene	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,2,3-Trichloropropane	ND (0.100)	0.0300	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,2,4-Trichlorobenzene	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,2,4-Trimethylbenzene	**0.279** (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,2-Dibromo-3-Chloropropane	ND (0.500)	0.100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,2-Dibromoethane	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,2-Dichlorobenzene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,2-Dichloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,2-Dichloropropane	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,3,5-Trimethylbenzene	**J 0.0470** (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,3-Dichlorobenzene	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,3-Dichloropropane	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,4-Dichlorobenzene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1,4-Dioxane - Screen	ND (50.0)	19.0	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
1-Chlorohexane	ND (0.100)	0.0400	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
2,2-Dichloropropane	ND (0.100)	0.0300	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
2-Butanone	ND (1.00)	0.340	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
2-Chlorotoluene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
2-Hexanone	ND (1.00)	0.150	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
4-Chlorotoluene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
4-Isopropyltoluene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
4-Methyl-2-Pentanone	ND (2.50)	0.160	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Acetone	ND (1.00)	0.270	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Benzene	**0.682** (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Bromobenzene	ND (0.200)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-21
Date Sampled: 10/15/15 09:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.100)	0.0300	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Bromodichloromethane	ND (0.0600)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Bromoform	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Bromomethane	ND (0.200)	0.0400	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Carbon Disulfide	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Carbon Tetrachloride	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Chlorobenzene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Chloroethane	ND (0.200)	0.0400	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Chloroform	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Chloromethane	ND (0.200)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
cis-1,2-Dichloroethene	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
cis-1,3-Dichloropropene	ND (0.0400)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Dibromochloromethane	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Dibromomethane	ND (0.100)	0.0300	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Dichlorodifluoromethane	ND (0.200)	0.0300	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Diethyl Ether	ND (0.100)	0.0300	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Di-isopropyl ether	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Ethyl tertiary-butyl ether	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Ethylbenzene	**1.47** (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Hexachlorobutadiene	ND (0.0600)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Hexachloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Isopropylbenzene	**J 0.0310** (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Methyl tert-Butyl Ether	ND (0.100)	0.0300	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Methylene Chloride	ND (0.200)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Naphthalene	**8.85** (1.00)	0.200	8260B		1000	10/23/15 19:34	CYJ0296	CJ52253
n-Butylbenzene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
n-Propylbenzene	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
sec-Butylbenzene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Styrene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
tert-Butylbenzene	ND (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Tertiary-amyl methyl ether	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Tetrachloroethene	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-21
Date Sampled: 10/15/15 09:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.500)	0.160	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Toluene	**0.180** (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
trans-1,2-Dichloroethene	ND (0.100)	0.0300	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
trans-1,3-Dichloropropene	ND (0.0400)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Trichloroethene	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Trichlorofluoromethane	ND (0.100)	0.0400	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Vinyl Acetate	ND (0.500)	0.0500	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Vinyl Chloride	ND (0.100)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Xylene O	**0.726** (0.100)	0.0100	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Xylene P,M	**0.771** (0.200)	0.0200	8260B		100	10/22/15 20:37	CYJ0296	CJ52253
Xylenes (Total)	**1.50** (0.200)		8260B		100	10/22/15 20:37		[CALC]
Trihalomethanes (Total)	ND (0.100)		8260B			10/22/15 20:37		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*107 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*94 %*		*70-130*
Surrogate: Dibromofluoromethane	*103 %*		*70-130*
Surrogate: Toluene-d8	*76 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-301D
Date Sampled: 10/15/15 16:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Acetone	ND (0.0100)	0.0027	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Benzene	**J 0.0002** (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-301D
Date Sampled: 10/15/15 16:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Bromoform	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Chloroform	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
cis-1,2-Dichloroethene	**0.0272** (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Naphthalene	**B, J 0.0003** (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Styrene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Tetrachloroethene	**0.0039** (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-301D
Date Sampled: 10/15/15 16:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Toluene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
trans-1,2-Dichloroethene	**J 0.0004** (0.0010)	0.0003	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Trichloroethene	**0.0120** (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Vinyl Chloride	**0.0038** (0.0010)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Xylene O	ND (0.0010)	0.0001	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/20/15 21:14	CYJ0261	CJ52048
Xylenes (Total)	ND (0.0020)		8260B		1	10/20/15 21:14		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/20/15 21:14		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*112 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*72 %*		*70-130*
Surrogate: Dibromofluoromethane	*113 %*		*70-130*
Surrogate: Toluene-d8	*76 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 10/15/15 16:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,1-Dichloroethane	**J 0.0004** (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Acetone	ND (0.0100)	0.0027	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Benzene	**0.0023** (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 10/15/15 16:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Bromoform	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Chloroform	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
cis-1,2-Dichloroethene	**0.0168** (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Methyl tert-Butyl Ether	**J 0.0005** (0.0010)	0.0003	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Naphthalene	**B, J 0.0004** (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Styrene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 10/15/15 16:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Toluene	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Vinyl Chloride	**J 0.0002** (0.0010)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Xylene O	ND (0.0010)	0.0001	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/20/15 21:39	CYJ0261	CJ52048
Xylenes (Total)	ND (0.0020)		8260B		1	10/20/15 21:39		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/20/15 21:39		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*109 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*77 %*		*70-130*
Surrogate: Dibromofluoromethane	*111 %*		*70-130*
Surrogate: Toluene-d8	*77 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-309D
Date Sampled: 10/15/15 14:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Acetone	ND (0.0100)	0.0027	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Benzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-309D
Date Sampled: 10/15/15 14:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Bromoform	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Chloroform	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Naphthalene	**B, J 0.0003** (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Styrene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-309D
Date Sampled: 10/15/15 14:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Toluene	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Xylene O	ND (0.0010)	0.0001	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/20/15 22:05	CYJ0261	CJ52048
Xylenes (Total)	ND (0.0020)		8260B		1	10/20/15 22:05		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/20/15 22:05		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*74 %*		*70-130*
Surrogate: Dibromofluoromethane	*114 %*		*70-130*
Surrogate: Toluene-d8	*72 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZA-314S
Date Sampled: 10/16/15 11:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,1,1-Trichloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,1,2,2-Tetrachloroethane	ND (0.0500)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,1,2-Trichloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,1-Dichloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,1-Dichloroethene	ND (0.100)	0.0300	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,1-Dichloropropene	ND (0.200)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,2,3-Trichlorobenzene	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,2,3-Trichloropropane	ND (0.100)	0.0300	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,2,4-Trichlorobenzene	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,2,4-Trimethylbenzene	**0.258** (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,2-Dibromo-3-Chloropropane	ND (0.500)	0.100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,2-Dibromoethane	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,2-Dichlorobenzene	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,2-Dichloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,2-Dichloropropane	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,3,5-Trimethylbenzene	**J 0.0490** (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,3-Dichlorobenzene	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,3-Dichloropropane	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,4-Dichlorobenzene	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1,4-Dioxane - Screen	ND (50.0)	19.0	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
1-Chlorohexane	ND (0.100)	0.0400	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
2,2-Dichloropropane	ND (0.100)	0.0300	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
2-Butanone	ND (1.00)	0.340	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
2-Chlorotoluene	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
2-Hexanone	ND (1.00)	0.150	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
4-Chlorotoluene	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
4-Isopropyltoluene	**J 0.0160** (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
4-Methyl-2-Pentanone	ND (2.50)	0.160	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Acetone	ND (1.00)	0.270	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Benzene	**7.67** (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Bromobenzene	ND (0.200)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZA-314S
Date Sampled: 10/16/15 11:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.100)	0.0300	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Bromodichloromethane	ND (0.0600)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Bromoform	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Bromomethane	ND (0.200)	0.0400	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Carbon Disulfide	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Carbon Tetrachloride	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Chlorobenzene	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Chloroethane	ND (0.200)	0.0400	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Chloroform	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Chloromethane	ND (0.200)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
cis-1,2-Dichloroethene	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
cis-1,3-Dichloropropene	ND (0.0400)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Dibromochloromethane	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Dibromomethane	ND (0.100)	0.0300	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Dichlorodifluoromethane	ND (0.200)	0.0300	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Diethyl Ether	ND (0.100)	0.0300	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Di-isopropyl ether	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Ethyl tertiary-butyl ether	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Ethylbenzene	**2.37** (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Hexachlorobutadiene	ND (0.0600)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Hexachloroethane	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Isopropylbenzene	**J 0.0520** (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Methyl tert-Butyl Ether	ND (0.100)	0.0300	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Methylene Chloride	ND (0.200)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Naphthalene	**4.44** (1.00)	0.200	8260B		1000	10/23/15 19:09	CYJ0296	CJ52253
n-Butylbenzene	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
n-Propylbenzene	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
sec-Butylbenzene	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Styrene	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
tert-Butylbenzene	ND (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Tertiary-amyl methyl ether	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Tetrachloroethene	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZA-314S
Date Sampled: 10/16/15 11:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.500)	0.160	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Toluene	**J 0.0520** (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
trans-1,2-Dichloroethene	ND (0.100)	0.0300	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
trans-1,3-Dichloropropene	ND (0.0400)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Trichloroethene	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Trichlorofluoromethane	ND (0.100)	0.0400	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Vinyl Acetate	ND (0.500)	0.0500	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Vinyl Chloride	ND (0.100)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Xylene O	**0.546** (0.100)	0.0100	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Xylene P,M	**0.226** (0.200)	0.0200	8260B		100	10/22/15 21:02	CYJ0296	CJ52253
Xylenes (Total)	**0.772** (0.200)		8260B		100	10/22/15 21:02		[CALC]
Trihalomethanes (Total)	ND (0.100)		8260B			10/22/15 21:02		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*107 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*92 %*		*70-130*
Surrogate: Dibromofluoromethane	*103 %*		*70-130*
Surrogate: Toluene-d8	*79 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314D
Date Sampled: 10/16/15 12:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,2,4-Trimethylbenzene	**0.0825** (0.0500)	0.0050	8260B		50	10/23/15 17:54	CYJ0277	CJ52153
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,3,5-Trimethylbenzene	**0.0218** (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
4-Isopropyltoluene	**0.0038** (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Acetone	**J 0.0028** (0.0100)	0.0027	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Benzene	**1.79** (0.0500)	0.0050	8260B		50	10/23/15 17:54	CYJ0277	CJ52153
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314D
Date Sampled: 10/16/15 12:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Bromoform	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Carbon Disulfide	**0.0023** (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Chloroform	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Ethylbenzene	**0.518** (0.0500)	0.0050	8260B		50	10/23/15 17:54	CYJ0277	CJ52153
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Isopropylbenzene	**0.0296** (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Naphthalene	**2.99** (0.0500)	0.0100	8260B		50	10/23/15 17:54	CYJ0277	CJ52153
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
n-Propylbenzene	**0.0092** (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
sec-Butylbenzene	**0.0011** (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Styrene	**J 0.0005** (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
tert-Butylbenzene	**J 0.0003** (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314D
Date Sampled: 10/16/15 12:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Toluene	**0.0145** (0.0010)	0.0001	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Xylene O	**0.0820** (0.0500)	0.0050	8260B		50	10/23/15 17:54	CYJ0277	CJ52153
Xylene P,M	**0.0347** (0.0020)	0.0002	8260B		1	10/21/15 21:04	CYJ0277	CJ52153
Xylenes (Total)	**0.117** (0.0500)		8260B		50	10/23/15 17:54		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/21/15 21:04		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*74 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*94 %*		*70-130*
Surrogate: Dibromofluoromethane	*78 %*		*70-130*
Surrogate: Toluene-d8	*97 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD101615
Date Sampled: 10/16/15 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,2,4-Trimethylbenzene	**0.0785** (0.0500)	0.0050	8260B		50	10/23/15 18:19	CYJ0277	CJ52153
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,3,5-Trimethylbenzene	**0.0229** (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
4-Isopropyltoluene	**0.0040** (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Acetone	ND (0.0100)	0.0027	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Benzene	**1.84** (0.0500)	0.0050	8260B		50	10/23/15 18:19	CYJ0277	CJ52153
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD101615
Date Sampled: 10/16/15 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Bromoform	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Carbon Disulfide	**0.0016** (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Chloroform	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Ethylbenzene	**0.514** (0.0500)	0.0050	8260B		50	10/23/15 18:19	CYJ0277	CJ52153
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Isopropylbenzene	**0.0316** (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Naphthalene	**3.17** (0.0500)	0.0100	8260B		50	10/23/15 18:19	CYJ0277	CJ52153
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
n-Propylbenzene	**0.0098** (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
sec-Butylbenzene	**0.0011** (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Styrene	**J 0.0004** (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
tert-Butylbenzene	**J 0.0002** (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD101615
Date Sampled: 10/16/15 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Toluene	**0.0124** (0.0010)	0.0001	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Xylene O	**0.0785** (0.0500)	0.0050	8260B		50	10/23/15 18:19	CYJ0277	CJ52153
Xylene P,M	**0.0309** (0.0020)	0.0002	8260B		1	10/21/15 21:29	CYJ0277	CJ52153
Xylenes (Total)	**0.109** (0.0500)		8260B		50	10/23/15 18:19		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/21/15 21:29		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*71 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*91 %*		*70-130*
Surrogate: Dibromofluoromethane	*76 %*		*70-130*
Surrogate: Toluene-d8	*93 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-28
Date Sampled: 10/16/15 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,2,4-Trimethylbenzene	**E 0.203** (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,3,5-Trimethylbenzene	**0.0853** (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
4-Isopropyltoluene	**0.0012** (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Acetone	**B 0.0113** (0.0100)	0.0027	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Benzene	**0.0350** (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-28
Date Sampled: 10/16/15 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Bromoform	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Carbon Disulfide	**0.0191** (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Chloroform	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Ethylbenzene	**0.0944** (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Isopropylbenzene	**0.0042** (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Naphthalene	**5.77** (0.100)	0.0200	8260B		100	10/23/15 16:38	CYJ0319	CJ52344
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
n-Propylbenzene	**J 0.0010** (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
sec-Butylbenzene	**J 0.0005** (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Styrene	**0.0078** (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-28
Date Sampled: 10/16/15 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510463
ESS Laboratory Sample ID: 1510463-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Toluene	**0.245** (0.100)	0.0100	8260B		100	10/23/15 16:38	CYJ0319	CJ52344
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Xylene O	**0.160** (0.100)	0.0100	8260B		100	10/23/15 16:38	CYJ0319	CJ52344
Xylene P,M	**E 0.366** (0.0020)	0.0002	8260B		1	10/23/15 21:39	CYJ0319	CJ52344
Xylenes (Total)	**0.526** (0.100)		8260B		100	10/23/15 21:39		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/23/15 21:39		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*110 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*109 %*		*70-130*
Surrogate: Toluene-d8	*71 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	0.0003	0.0010	mg/L							J
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Trihalomethanes (Total)	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0290*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0189*		mg/L	*0.02500*		*76*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0275*		mg/L	*0.02500*		*110*	*70-130*			
Surrogate: Toluene-d8	*0.0194*		mg/L	*0.02500*		*78*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.83		ug/L	10.00		98	70-130			
1,1,1-Trichloroethane	10.4		ug/L	10.00		104	70-130			
1,1,2,2-Tetrachloroethane	9.54		ug/L	10.00		95	70-130			
1,1,2-Trichloroethane	9.61		ug/L	10.00		96	70-130			
1,1-Dichloroethane	9.79		ug/L	10.00		98	70-130			
1,1-Dichloroethene	10.7		ug/L	10.00		107	70-130			
1,1-Dichloropropene	10.3		ug/L	10.00		103	70-130			
1,2,3-Trichlorobenzene	9.10		ug/L	10.00		91	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
1,2,3-Trichloropropane	9.02		ug/L	10.00		90	70-130			
1,2,4-Trichlorobenzene	8.52		ug/L	10.00		85	70-130			
1,2,4-Trimethylbenzene	8.70		ug/L	10.00		87	70-130			
1,2-Dibromo-3-Chloropropane	8.91		ug/L	10.00		89	70-130			
1,2-Dibromoethane	9.69		ug/L	10.00		97	70-130			
1,2-Dichlorobenzene	9.61		ug/L	10.00		96	70-130			
1,2-Dichloroethane	10.4		ug/L	10.00		104	70-130			
1,2-Dichloropropane	9.45		ug/L	10.00		94	70-130			
1,3,5-Trimethylbenzene	9.24		ug/L	10.00		92	70-130			
1,3-Dichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,3-Dichloropropane	10.5		ug/L	10.00		105	70-130			
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,4-Dioxane - Screen	182		ug/L	200.0		91	0-332			
1-Chlorohexane	8.71		ug/L	10.00		87	70-130			
2,2-Dichloropropane	10.8		ug/L	10.00		108	70-130			
2-Butanone	48.2		ug/L	50.00		96	70-130			
2-Chlorotoluene	9.23		ug/L	10.00		92	70-130			
2-Hexanone	49.4		ug/L	50.00		99	70-130			
4-Chlorotoluene	9.30		ug/L	10.00		93	70-130			
4-Isopropyltoluene	9.18		ug/L	10.00		92	70-130			
4-Methyl-2-Pentanone	46.8		ug/L	50.00		94	70-130			
Acetone	56.4		ug/L	50.00		113	70-130			
Benzene	10.0		ug/L	10.00		100	70-130			
Bromobenzene	9.99		ug/L	10.00		100	70-130			
Bromochloromethane	10.6		ug/L	10.00		106	70-130			
Bromodichloromethane	10.1		ug/L	10.00		101	70-130			
Bromoform	10.2		ug/L	10.00		102	70-130			
Bromomethane	5.95		ug/L	10.00		60	70-130			B-
Carbon Disulfide	9.61		ug/L	10.00		96	70-130			
Carbon Tetrachloride	10.7		ug/L	10.00		107	70-130			
Chlorobenzene	9.90		ug/L	10.00		99	70-130			
Chloroethane	9.65		ug/L	10.00		96	70-130			
Chloroform	10.3		ug/L	10.00		103	70-130			
Chloromethane	8.25		ug/L	10.00		82	70-130			
cis-1,2-Dichloroethene	10.6		ug/L	10.00		106	70-130			
cis-1,3-Dichloropropene	8.35		ug/L	10.00		84	70-130			
Dibromochloromethane	9.72		ug/L	10.00		97	70-130			
Dibromomethane	10.0		ug/L	10.00		100	70-130			
Dichlorodifluoromethane	9.13		ug/L	10.00		91	70-130			
Diethyl Ether	9.63		ug/L	10.00		96	70-130			
Di-isopropyl ether	7.99		ug/L	10.00		80	70-130			
Ethyl tertiary-butyl ether	7.82		ug/L	10.00		78	70-130			
Ethylbenzene	9.20		ug/L	10.00		92	70-130			
Hexachlorobutadiene	12.1		ug/L	10.00		121	70-130			
Hexachloroethane	9.92		ug/L	10.00		99	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
Isopropylbenzene	8.49		ug/L	10.00		85	70-130			
Methyl tert-Butyl Ether	8.81		ug/L	10.00		88	70-130			
Methylene Chloride	10.4		ug/L	10.00		104	70-130			
Naphthalene	8.81		ug/L	10.00		88	70-130			
n-Butylbenzene	8.33		ug/L	10.00		83	70-130			
n-Propylbenzene	8.39		ug/L	10.00		84	70-130			
sec-Butylbenzene	9.04		ug/L	10.00		90	70-130			
Styrene	8.69		ug/L	10.00		87	70-130			
tert-Butylbenzene	8.46		ug/L	10.00		85	70-130			
Tertiary-amyl methyl ether	7.47		ug/L	10.00		75	70-130			
Tetrachloroethene	9.71		ug/L	10.00		97	70-130			
Tetrahydrofuran	8.84		ug/L	10.00		88	70-130			
Toluene	9.86		ug/L	10.00		99	70-130			
trans-1,2-Dichloroethene	10.3		ug/L	10.00		103	70-130			
trans-1,3-Dichloropropene	7.59		ug/L	10.00		76	70-130			
Trichloroethene	9.79		ug/L	10.00		98	70-130			
Trichlorofluoromethane	10.2		ug/L	10.00		102	70-130			
Trihalomethanes (Total)	40.4		mg/L							
Vinyl Acetate	12.4		ug/L	10.00		124	70-130			
Vinyl Chloride	9.54		ug/L	10.00		95	70-130			
Xylene O	9.61		ug/L	10.00		96	70-130			
Xylene P,M	19.2		ug/L	20.00		96	70-130			
Xylenes (Total)	28.8		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0270*		mg/L	*0.02500*		*108*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0260*		mg/L	*0.02500*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0284*		mg/L	*0.02500*		*114*	*70-130*			
Surrogate: Toluene-d8	*0.0253*		mg/L	*0.02500*		*101*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.1		ug/L	10.00		101	70-130	2	25	
1,1,1-Trichloroethane	10.4		ug/L	10.00		104	70-130	0.2	25	
1,1,2,2-Tetrachloroethane	9.38		ug/L	10.00		94	70-130	2	25	
1,1,2-Trichloroethane	9.52		ug/L	10.00		95	70-130	0.9	25	
1,1-Dichloroethane	9.53		ug/L	10.00		95	70-130	3	25	
1,1-Dichloroethene	10.6		ug/L	10.00		106	70-130	1	25	
1,1-Dichloropropene	10.3		ug/L	10.00		103	70-130	0.5	25	
1,2,3-Trichlorobenzene	8.76		ug/L	10.00		88	70-130	4	25	
1,2,3-Trichloropropane	8.94		ug/L	10.00		89	70-130	0.9	25	
1,2,4-Trichlorobenzene	8.19		ug/L	10.00		82	70-130	4	25	
1,2,4-Trimethylbenzene	8.57		ug/L	10.00		86	70-130	2	25	
1,2-Dibromo-3-Chloropropane	8.47		ug/L	10.00		85	70-130	5	25	
1,2-Dibromoethane	9.89		ug/L	10.00		99	70-130	2	25	
1,2-Dichlorobenzene	9.53		ug/L	10.00		95	70-130	0.8	25	
1,2-Dichloroethane	10.0		ug/L	10.00		100	70-130	4	25	
1,2-Dichloropropane	9.35		ug/L	10.00		94	70-130	1	25	
1,3,5-Trimethylbenzene	9.24		ug/L	10.00		92	70-130	0	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
1,3-Dichlorobenzene	9.80		ug/L	10.00		98	70-130	4	25	
1,3-Dichloropropane	10.8		ug/L	10.00		108	70-130	2	25	
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	0.6	25	
1,4-Dioxane - Screen	177		ug/L	200.0		89	0-332	2	200	
1-Chlorohexane	8.94		ug/L	10.00		89	70-130	3	25	
2,2-Dichloropropane	10.6		ug/L	10.00		106	70-130	2	25	
2-Butanone	47.2		ug/L	50.00		94	70-130	2	25	
2-Chlorotoluene	9.28		ug/L	10.00		93	70-130	0.5	25	
2-Hexanone	48.6		ug/L	50.00		97	70-130	2	25	
4-Chlorotoluene	9.16		ug/L	10.00		92	70-130	2	25	
4-Isopropyltoluene	9.05		ug/L	10.00		90	70-130	1	25	
4-Methyl-2-Pentanone	45.9		ug/L	50.00		92	70-130	2	25	
Acetone	47.4		ug/L	50.00		95	70-130	17	25	
Benzene	9.87		ug/L	10.00		99	70-130	1	25	
Bromobenzene	10.0		ug/L	10.00		100	70-130	0.1	25	
Bromochloromethane	10.4		ug/L	10.00		104	70-130	2	25	
Bromodichloromethane	9.74		ug/L	10.00		97	70-130	4	25	
Bromoform	10.2		ug/L	10.00		102	70-130	0.9	25	
Bromomethane	5.30		ug/L	10.00		53	70-130	12	25	B-
Carbon Disulfide	9.47		ug/L	10.00		95	70-130	1	25	
Carbon Tetrachloride	10.5		ug/L	10.00		105	70-130	2	25	
Chlorobenzene	10.0		ug/L	10.00		100	70-130	1	25	
Chloroethane	9.85		ug/L	10.00		98	70-130	2	25	
Chloroform	10.0		ug/L	10.00		100	70-130	3	25	
Chloromethane	8.04		ug/L	10.00		80	70-130	3	25	
cis-1,2-Dichloroethene	10.4		ug/L	10.00		104	70-130	2	25	
cis-1,3-Dichloropropene	8.11		ug/L	10.00		81	70-130	3	25	
Dibromochloromethane	9.65		ug/L	10.00		96	70-130	0.7	25	
Dibromomethane	9.77		ug/L	10.00		98	70-130	3	25	
Dichlorodifluoromethane	9.15		ug/L	10.00		92	70-130	0.2	25	
Diethyl Ether	9.34		ug/L	10.00		93	70-130	3	25	
Di-isopropyl ether	8.02		ug/L	10.00		80	70-130	0.4	25	
Ethyl tertiary-butyl ether	7.79		ug/L	10.00		78	70-130	0.4	25	
Ethylbenzene	9.21		ug/L	10.00		92	70-130	0.1	25	
Hexachlorobutadiene	11.4		ug/L	10.00		114	70-130	6	25	
Hexachloroethane	9.87		ug/L	10.00		99	70-130	0.5	25	
Isopropylbenzene	8.44		ug/L	10.00		84	70-130	0.6	25	
Methyl tert-Butyl Ether	8.60		ug/L	10.00		86	70-130	2	25	
Methylene Chloride	10.3		ug/L	10.00		103	70-130	2	25	
Naphthalene	8.24		ug/L	10.00		82	70-130	7	25	
n-Butylbenzene	8.06		ug/L	10.00		81	70-130	3	25	
n-Propylbenzene	8.42		ug/L	10.00		84	70-130	0.4	25	
sec-Butylbenzene	8.93		ug/L	10.00		89	70-130	1	25	
Styrene	8.77		ug/L	10.00		88	70-130	0.9	25	
tert-Butylbenzene	8.49		ug/L	10.00		85	70-130	0.4	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
Tertiary-amyl methyl ether	7.46		ug/L	10.00		75	70-130	0.1	25	
Tetrachloroethene	9.74		ug/L	10.00		97	70-130	0.3	25	
Tetrahydrofuran	8.34		ug/L	10.00		83	70-130	6	25	
Toluene	9.74		ug/L	10.00		97	70-130	1	25	
trans-1,2-Dichloroethene	10.1		ug/L	10.00		101	70-130	2	25	
trans-1,3-Dichloropropene	7.52		ug/L	10.00		75	70-130	0.9	25	
Trichloroethene	9.80		ug/L	10.00		98	70-130	0.1	25	
Trichlorofluoromethane	9.89		ug/L	10.00		99	70-130	3	25	
Trihalomethanes (Total)	39.5		mg/L							
Vinyl Acetate	12.2		ug/L	10.00		122	70-130	1	25	
Vinyl Chloride	9.26		ug/L	10.00		93	70-130	3	25	
Xylene O	9.72		ug/L	10.00		97	70-130	1	25	
Xylene P,M	19.3		ug/L	20.00		97	70-130	0.7	25	
Xylenes (Total)	29.0		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0268*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0262*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0278*		mg/L	*0.02500*		*111*	*70-130*			
Surrogate: Toluene-d8	*0.0258*		mg/L	*0.02500*		*103*	*70-130*			
Batch CJ52153 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - 5030B										
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	0.0004	0.0020	mg/L							J
Naphthalene	0.0002	0.0010	mg/L							J
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - [CALC]										
Trihalomethanes (Total)	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0295*		mg/L	*0.02500*		*118*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0183*		mg/L	*0.02500*		*73*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0293*		mg/L	*0.02500*		*117*	*70-130*			
Surrogate: Toluene-d8	*0.0192*		mg/L	*0.02500*		*77*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130			
1,1,1-Trichloroethane	11.1		ug/L	10.00		111	70-130			
1,1,2,2-Tetrachloroethane	9.60		ug/L	10.00		96	70-130			
1,1,2-Trichloroethane	10.0		ug/L	10.00		100	70-130			
1,1-Dichloroethane	10.2		ug/L	10.00		102	70-130			
1,1-Dichloroethene	10.8		ug/L	10.00		108	70-130			
1,1-Dichloropropene	10.9		ug/L	10.00		109	70-130			
1,2,3-Trichlorobenzene	9.32		ug/L	10.00		93	70-130			
1,2,3-Trichloropropane	9.33		ug/L	10.00		93	70-130			
1,2,4-Trichlorobenzene	8.65		ug/L	10.00		86	70-130			
1,2,4-Trimethylbenzene	8.95		ug/L	10.00		90	70-130			
1,2-Dibromo-3-Chloropropane	9.34		ug/L	10.00		93	70-130			
1,2-Dibromoethane	10.1		ug/L	10.00		101	70-130			
1,2-Dichlorobenzene	9.81		ug/L	10.00		98	70-130			
1,2-Dichloroethane	10.8		ug/L	10.00		108	70-130			
1,2-Dichloropropane	9.67		ug/L	10.00		97	70-130			
1,3,5-Trimethylbenzene	9.51		ug/L	10.00		95	70-130			
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,3-Dichloropropane	10.8		ug/L	10.00		108	70-130			
1,4-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,4-Dioxane - Screen	179		ug/L	200.0		89	0-332			
1-Chlorohexane	8.81		ug/L	10.00		88	70-130			
2,2-Dichloropropane	11.7		ug/L	10.00		117	70-130			
2-Butanone	51.3		ug/L	50.00		103	70-130			
2-Chlorotoluene	9.25		ug/L	10.00		92	70-130			
2-Hexanone	50.3		ug/L	50.00		101	70-130			
4-Chlorotoluene	9.59		ug/L	10.00		96	70-130			
4-Isopropyltoluene	9.57		ug/L	10.00		96	70-130			
4-Methyl-2-Pentanone	49.3		ug/L	50.00		99	70-130			
Acetone	51.6		ug/L	50.00		103	70-130			
Benzene	10.4		ug/L	10.00		104	70-130			
Bromobenzene	10.4		ug/L	10.00		104	70-130			
Bromochloromethane	11.0		ug/L	10.00		110	70-130			
Bromodichloromethane	10.4		ug/L	10.00		104	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - 5030B										
Bromoform	10.5		ug/L	10.00		105	70-130			
Bromomethane	6.28		ug/L	10.00		63	70-130			B-
Carbon Disulfide	9.94		ug/L	10.00		99	70-130			
Carbon Tetrachloride	11.4		ug/L	10.00		114	70-130			
Chlorobenzene	10.3		ug/L	10.00		103	70-130			
Chloroethane	9.31		ug/L	10.00		93	70-130			
Chloroform	10.6		ug/L	10.00		106	70-130			
Chloromethane	9.64		ug/L	10.00		96	70-130			
cis-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130			
cis-1,3-Dichloropropene	8.45		ug/L	10.00		84	70-130			
Dibromochloromethane	9.96		ug/L	10.00		100	70-130			
Dibromomethane	10.6		ug/L	10.00		106	70-130			
Dichlorodifluoromethane	10.7		ug/L	10.00		107	70-130			
Diethyl Ether	9.67		ug/L	10.00		97	70-130			
Di-isopropyl ether	8.19		ug/L	10.00		82	70-130			
Ethyl tertiary-butyl ether	8.47		ug/L	10.00		85	70-130			
Ethylbenzene	9.27		ug/L	10.00		93	70-130			
Hexachlorobutadiene	12.4		ug/L	10.00		124	70-130			
Hexachloroethane	10.3		ug/L	10.00		103	70-130			
Isopropylbenzene	8.64		ug/L	10.00		86	70-130			
Methyl tert-Butyl Ether	8.99		ug/L	10.00		90	70-130			
Methylene Chloride	11.2		ug/L	10.00		112	70-130			
Naphthalene	8.67		ug/L	10.00		87	70-130			
n-Butylbenzene	8.62		ug/L	10.00		86	70-130			
n-Propylbenzene	8.61		ug/L	10.00		86	70-130			
sec-Butylbenzene	9.25		ug/L	10.00		92	70-130			
Styrene	8.76		ug/L	10.00		88	70-130			
tert-Butylbenzene	8.73		ug/L	10.00		87	70-130			
Tertiary-amyl methyl ether	8.25		ug/L	10.00		82	70-130			
Tetrachloroethene	10.2		ug/L	10.00		102	70-130			
Tetrahydrofuran	8.74		ug/L	10.00		87	70-130			
Toluene	10.2		ug/L	10.00		102	70-130			
trans-1,2-Dichloroethene	10.3		ug/L	10.00		103	70-130			
trans-1,3-Dichloropropene	8.02		ug/L	10.00		80	70-130			
Trichloroethene	10.1		ug/L	10.00		101	70-130			
Trichlorofluoromethane	10.8		ug/L	10.00		108	70-130			
Trihalomethanes (Total)	41.4		mg/L							
Vinyl Acetate	13.7		ug/L	10.00		137	70-130			B+
Vinyl Chloride	10.4		ug/L	10.00		104	70-130			
Xylene O	9.84		ug/L	10.00		98	70-130			
Xylene P,M	19.7		ug/L	20.00		99	70-130			
Xylenes (Total)	29.6		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0281*		mg/L	*0.02500*		*112*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0261*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0285*		mg/L	*0.02500*		*114*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - 5030B										
Surrogate: Toluene-d8	*0.0251*		mg/L	*0.02500*		*100*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.1		ug/L	10.00		101	70-130	3	25	
1,1,1-Trichloroethane	10.9		ug/L	10.00		109	70-130	2	25	
1,1,2,2-Tetrachloroethane	9.47		ug/L	10.00		95	70-130	1	25	
1,1,2-Trichloroethane	9.92		ug/L	10.00		99	70-130	1	25	
1,1-Dichloroethane	9.90		ug/L	10.00		99	70-130	3	25	
1,1-Dichloroethene	11.0		ug/L	10.00		110	70-130	1	25	
1,1-Dichloropropene	10.4		ug/L	10.00		104	70-130	4	25	
1,2,3-Trichlorobenzene	8.87		ug/L	10.00		89	70-130	5	25	
1,2,3-Trichloropropane	9.14		ug/L	10.00		91	70-130	2	25	
1,2,4-Trichlorobenzene	8.32		ug/L	10.00		83	70-130	4	25	
1,2,4-Trimethylbenzene	8.62		ug/L	10.00		86	70-130	4	25	
1,2-Dibromo-3-Chloropropane	9.47		ug/L	10.00		95	70-130	1	25	
1,2-Dibromoethane	9.96		ug/L	10.00		100	70-130	1	25	
1,2-Dichlorobenzene	9.60		ug/L	10.00		96	70-130	2	25	
1,2-Dichloroethane	10.5		ug/L	10.00		105	70-130	3	25	
1,2-Dichloropropane	9.67		ug/L	10.00		97	70-130	0	25	
1,3,5-Trimethylbenzene	9.40		ug/L	10.00		94	70-130	1	25	
1,3-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	3	25	
1,3-Dichloropropane	10.6		ug/L	10.00		106	70-130	1	25	
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	2	25	
1,4-Dioxane - Screen	193		ug/L	200.0		97	0-332	8	200	
1-Chlorohexane	8.60		ug/L	10.00		86	70-130	2	25	
2,2-Dichloropropane	11.2		ug/L	10.00		112	70-130	4	25	
2-Butanone	51.2		ug/L	50.00		102	70-130	0.2	25	
2-Chlorotoluene	9.00		ug/L	10.00		90	70-130	3	25	
2-Hexanone	52.2		ug/L	50.00		104	70-130	4	25	
4-Chlorotoluene	9.44		ug/L	10.00		94	70-130	2	25	
4-Isopropyltoluene	9.20		ug/L	10.00		92	70-130	4	25	
4-Methyl-2-Pentanone	48.8		ug/L	50.00		98	70-130	1	25	
Acetone	55.5		ug/L	50.00		111	70-130	7	25	
Benzene	10.2		ug/L	10.00		102	70-130	2	25	
Bromobenzene	10.1		ug/L	10.00		101	70-130	3	25	
Bromochloromethane	11.0		ug/L	10.00		110	70-130	0	25	
Bromodichloromethane	10.3		ug/L	10.00		103	70-130	1	25	
Bromoform	10.2		ug/L	10.00		102	70-130	2	25	
Bromomethane	6.22		ug/L	10.00		62	70-130	1	25	B-
Carbon Disulfide	9.73		ug/L	10.00		97	70-130	2	25	
Carbon Tetrachloride	11.2		ug/L	10.00		112	70-130	2	25	
Chlorobenzene	9.89		ug/L	10.00		99	70-130	4	25	
Chloroethane	7.60		ug/L	10.00		76	70-130	20	25	
Chloroform	10.5		ug/L	10.00		105	70-130	1	25	
Chloromethane	9.03		ug/L	10.00		90	70-130	7	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - 5030B										
cis-1,2-Dichloroethene	10.7		ug/L	10.00		107	70-130	2	25	
cis-1,3-Dichloropropene	8.39		ug/L	10.00		84	70-130	0.7	25	
Dibromochloromethane	9.59		ug/L	10.00		96	70-130	4	25	
Dibromomethane	10.3		ug/L	10.00		103	70-130	2	25	
Dichlorodifluoromethane	10.3		ug/L	10.00		103	70-130	4	25	
Diethyl Ether	9.70		ug/L	10.00		97	70-130	0.3	25	
Di-isopropyl ether	8.09		ug/L	10.00		81	70-130	1	25	
Ethyl tertiary-butyl ether	8.15		ug/L	10.00		82	70-130	4	25	
Ethylbenzene	9.00		ug/L	10.00		90	70-130	3	25	
Hexachlorobutadiene	11.5		ug/L	10.00		115	70-130	7	25	
Hexachloroethane	9.94		ug/L	10.00		99	70-130	4	25	
Isopropylbenzene	8.37		ug/L	10.00		84	70-130	3	25	
Methyl tert-Butyl Ether	8.87		ug/L	10.00		89	70-130	1	25	
Methylene Chloride	11.5		ug/L	10.00		115	70-130	2	25	
Naphthalene	8.09		ug/L	10.00		81	70-130	7	25	
n-Butylbenzene	8.02		ug/L	10.00		80	70-130	7	25	
n-Propylbenzene	8.37		ug/L	10.00		84	70-130	3	25	
sec-Butylbenzene	8.93		ug/L	10.00		89	70-130	4	25	
Styrene	8.52		ug/L	10.00		85	70-130	3	25	
tert-Butylbenzene	8.44		ug/L	10.00		84	70-130	3	25	
Tertiary-amyl methyl ether	8.12		ug/L	10.00		81	70-130	2	25	
Tetrachloroethene	9.66		ug/L	10.00		97	70-130	5	25	
Tetrahydrofuran	8.85		ug/L	10.00		88	70-130	1	25	
Toluene	9.88		ug/L	10.00		99	70-130	4	25	
trans-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130	0.8	25	
trans-1,3-Dichloropropene	7.98		ug/L	10.00		80	70-130	0.5	25	
Trichloroethene	9.84		ug/L	10.00		98	70-130	3	25	
Trichlorofluoromethane	10.6		ug/L	10.00		106	70-130	2	25	
Trihalomethanes (Total)	40.6		mg/L							
Vinyl Acetate	13.6		ug/L	10.00		136	70-130	0.6	25	B+
Vinyl Chloride	10.0		ug/L	10.00		100	70-130	3	25	
Xylene O	9.47		ug/L	10.00		95	70-130	4	25	
Xylene P,M	19.1		ug/L	20.00		96	70-130	3	25	
Xylenes (Total)	28.6		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0280*		mg/L	*0.02500*		*112*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0261*		mg/L	*0.02500*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0287*		mg/L	*0.02500*		*115*	*70-130*			
Surrogate: Toluene-d8	*0.0245*		mg/L	*0.02500*		*98*	*70-130*			
Batch CJ52253 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Trihalomethanes (Total)	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0288*		mg/L	*0.02500*		*115*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0186*		mg/L	*0.02500*		*74*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0290*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: Toluene-d8	*0.0190*		mg/L	*0.02500*		*76*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130			
1,1,1-Trichloroethane	10.8		ug/L	10.00		108	70-130			
1,1,2,2-Tetrachloroethane	9.64		ug/L	10.00		96	70-130			
1,1,2-Trichloroethane	9.95		ug/L	10.00		100	70-130			
1,1-Dichloroethane	10.0		ug/L	10.00		100	70-130			
1,1-Dichloroethene	11.0		ug/L	10.00		110	70-130			
1,1-Dichloropropene	10.8		ug/L	10.00		108	70-130			
1,2,3-Trichlorobenzene	9.47		ug/L	10.00		95	70-130			
1,2,3-Trichloropropane	9.32		ug/L	10.00		93	70-130			
1,2,4-Trichlorobenzene	8.86		ug/L	10.00		89	70-130			
1,2,4-Trimethylbenzene	8.99		ug/L	10.00		90	70-130			
1,2-Dibromo-3-Chloropropane	9.30		ug/L	10.00		93	70-130			
1,2-Dibromoethane	9.87		ug/L	10.00		99	70-130			
1,2-Dichlorobenzene	9.76		ug/L	10.00		98	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
1,2-Dichloroethane	10.6		ug/L	10.00		106	70-130			
1,2-Dichloropropane	9.63		ug/L	10.00		96	70-130			
1,3,5-Trimethylbenzene	9.50		ug/L	10.00		95	70-130			
1,3-Dichlorobenzene	10.3		ug/L	10.00		103	70-130			
1,3-Dichloropropane	10.9		ug/L	10.00		109	70-130			
1,4-Dichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,4-Dioxane - Screen	179		ug/L	200.0		90	0-332			
1-Chlorohexane	8.87		ug/L	10.00		89	70-130			
2,2-Dichloropropane	11.1		ug/L	10.00		111	70-130			
2-Butanone	48.9		ug/L	50.00		98	70-130			
2-Chlorotoluene	9.33		ug/L	10.00		93	70-130			
2-Hexanone	50.8		ug/L	50.00		102	70-130			
4-Chlorotoluene	9.41		ug/L	10.00		94	70-130			
4-Isopropyltoluene	9.47		ug/L	10.00		95	70-130			
4-Methyl-2-Pentanone	48.5		ug/L	50.00		97	70-130			
Acetone	50.9		ug/L	50.00		102	70-130			
Benzene	10.2		ug/L	10.00		102	70-130			
Bromobenzene	10.2		ug/L	10.00		102	70-130			
Bromochloromethane	10.9		ug/L	10.00		109	70-130			
Bromodichloromethane	10.3		ug/L	10.00		103	70-130			
Bromoform	10.3		ug/L	10.00		103	70-130			
Bromomethane	5.07		ug/L	10.00		51	70-130			B-
Carbon Disulfide	9.75		ug/L	10.00		98	70-130			
Carbon Tetrachloride	11.2		ug/L	10.00		112	70-130			
Chlorobenzene	10.2		ug/L	10.00		102	70-130			
Chloroethane	9.84		ug/L	10.00		98	70-130			
Chloroform	10.5		ug/L	10.00		105	70-130			
Chloromethane	8.94		ug/L	10.00		89	70-130			
cis-1,2-Dichloroethene	10.8		ug/L	10.00		108	70-130			
cis-1,3-Dichloropropene	8.36		ug/L	10.00		84	70-130			
Dibromochloromethane	9.61		ug/L	10.00		96	70-130			
Dibromomethane	10.1		ug/L	10.00		101	70-130			
Dichlorodifluoromethane	10.2		ug/L	10.00		102	70-130			
Diethyl Ether	9.91		ug/L	10.00		99	70-130			
Di-isopropyl ether	8.20		ug/L	10.00		82	70-130			
Ethyl tertiary-butyl ether	8.40		ug/L	10.00		84	70-130			
Ethylbenzene	9.37		ug/L	10.00		94	70-130			
Hexachlorobutadiene	12.5		ug/L	10.00		125	70-130			
Hexachloroethane	10.3		ug/L	10.00		103	70-130			
Isopropylbenzene	8.59		ug/L	10.00		86	70-130			
Methyl tert-Butyl Ether	8.96		ug/L	10.00		90	70-130			
Methylene Chloride	10.6		ug/L	10.00		106	70-130			
Naphthalene	9.26		ug/L	10.00		93	70-130			
n-Butylbenzene	8.73		ug/L	10.00		87	70-130			
n-Propylbenzene	8.58		ug/L	10.00		86	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
sec-Butylbenzene	9.22		ug/L	10.00		92	70-130			
Styrene	8.87		ug/L	10.00		89	70-130			
tert-Butylbenzene	8.55		ug/L	10.00		86	70-130			
Tertiary-amyl methyl ether	8.17		ug/L	10.00		82	70-130			
Tetrachloroethene	9.71		ug/L	10.00		97	70-130			
Tetrahydrofuran	8.85		ug/L	10.00		88	70-130			
Toluene	10.0		ug/L	10.00		100	70-130			
trans-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130			
trans-1,3-Dichloropropene	7.93		ug/L	10.00		79	70-130			
Trichloroethene	9.87		ug/L	10.00		99	70-130			
Trichlorofluoromethane	10.6		ug/L	10.00		106	70-130			
Trihalomethanes (Total)	40.8		mg/L							
Vinyl Acetate	13.6		ug/L	10.00		136	70-130			B+
Vinyl Chloride	9.88		ug/L	10.00		99	70-130			
Xylene O	9.85		ug/L	10.00		98	70-130			
Xylene P,M	19.6		ug/L	20.00		98	70-130			
Xylenes (Total)	29.4		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0275*		mg/L	*0.02500*		*110*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0262*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0284*		mg/L	*0.02500*		*114*	*70-130*			
Surrogate: Toluene-d8	*0.0251*		mg/L	*0.02500*		*101*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.0		ug/L	10.00		100	70-130	3	25	
1,1,1-Trichloroethane	10.8		ug/L	10.00		108	70-130	0.3	25	
1,1,2,2-Tetrachloroethane	9.69		ug/L	10.00		97	70-130	0.5	25	
1,1,2-Trichloroethane	9.82		ug/L	10.00		98	70-130	1	25	
1,1-Dichloroethane	9.74		ug/L	10.00		97	70-130	3	25	
1,1-Dichloroethene	10.9		ug/L	10.00		109	70-130	0.5	25	
1,1-Dichloropropene	10.6		ug/L	10.00		106	70-130	2	25	
1,2,3-Trichlorobenzene	9.24		ug/L	10.00		92	70-130	2	25	
1,2,3-Trichloropropane	9.26		ug/L	10.00		93	70-130	0.6	25	
1,2,4-Trichlorobenzene	8.53		ug/L	10.00		85	70-130	4	25	
1,2,4-Trimethylbenzene	8.88		ug/L	10.00		89	70-130	1	25	
1,2-Dibromo-3-Chloropropane	9.39		ug/L	10.00		94	70-130	1	25	
1,2-Dibromoethane	9.88		ug/L	10.00		99	70-130	0.1	25	
1,2-Dichlorobenzene	9.67		ug/L	10.00		97	70-130	0.9	25	
1,2-Dichloroethane	10.5		ug/L	10.00		105	70-130	0.9	25	
1,2-Dichloropropane	9.39		ug/L	10.00		94	70-130	3	25	
1,3,5-Trimethylbenzene	9.45		ug/L	10.00		94	70-130	0.5	25	
1,3-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	2	25	
1,3-Dichloropropane	10.6		ug/L	10.00		106	70-130	3	25	
1,4-Dichlorobenzene	10.1		ug/L	10.00		101	70-130	4	25	
1,4-Dioxane - Screen	187		ug/L	200.0		94	0-332	4	200	
1-Chlorohexane	8.69		ug/L	10.00		87	70-130	2	25	
2,2-Dichloropropane	11.4		ug/L	10.00		114	70-130	3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
2-Butanone	49.4		ug/L	50.00		99	70-130	1	25	
2-Chlorotoluene	9.21		ug/L	10.00		92	70-130	1	25	
2-Hexanone	49.6		ug/L	50.00		99	70-130	2	25	
4-Chlorotoluene	9.46		ug/L	10.00		95	70-130	0.5	25	
4-Isopropyltoluene	9.39		ug/L	10.00		94	70-130	0.8	25	
4-Methyl-2-Pentanone	47.8		ug/L	50.00		96	70-130	2	25	
Acetone	49.8		ug/L	50.00		100	70-130	2	25	
Benzene	10.2		ug/L	10.00		102	70-130	0.1	25	
Bromobenzene	10.3		ug/L	10.00		103	70-130	1	25	
Bromochloromethane	10.8		ug/L	10.00		108	70-130	0.3	25	
Bromodichloromethane	10.2		ug/L	10.00		102	70-130	1	25	
Bromoform	10.2		ug/L	10.00		102	70-130	1	25	
Bromomethane	5.11		ug/L	10.00		51	70-130	0.8	25	B-
Carbon Disulfide	9.68		ug/L	10.00		97	70-130	0.7	25	
Carbon Tetrachloride	11.1		ug/L	10.00		111	70-130	2	25	
Chlorobenzene	9.97		ug/L	10.00		100	70-130	2	25	
Chloroethane	8.99		ug/L	10.00		90	70-130	9	25	
Chloroform	10.3		ug/L	10.00		103	70-130	2	25	
Chloromethane	8.75		ug/L	10.00		88	70-130	2	25	
cis-1,2-Dichloroethene	10.8		ug/L	10.00		108	70-130	0	25	
cis-1,3-Dichloropropene	8.30		ug/L	10.00		83	70-130	0.7	25	
Dibromochloromethane	9.53		ug/L	10.00		95	70-130	0.8	25	
Dibromomethane	10.2		ug/L	10.00		102	70-130	0.2	25	
Dichlorodifluoromethane	9.96		ug/L	10.00		100	70-130	3	25	
Diethyl Ether	9.86		ug/L	10.00		99	70-130	0.5	25	
Di-isopropyl ether	8.17		ug/L	10.00		82	70-130	0.4	25	
Ethyl tertiary-butyl ether	8.36		ug/L	10.00		84	70-130	0.5	25	
Ethylbenzene	9.14		ug/L	10.00		91	70-130	2	25	
Hexachlorobutadiene	11.7		ug/L	10.00		117	70-130	6	25	
Hexachloroethane	10.0		ug/L	10.00		100	70-130	3	25	
Isopropylbenzene	8.59		ug/L	10.00		86	70-130	0	25	
Methyl tert-Butyl Ether	9.06		ug/L	10.00		91	70-130	1	25	
Methylene Chloride	10.7		ug/L	10.00		107	70-130	1	25	
Naphthalene	8.70		ug/L	10.00		87	70-130	6	25	
n-Butylbenzene	8.51		ug/L	10.00		85	70-130	3	25	
n-Propylbenzene	8.57		ug/L	10.00		86	70-130	0.1	25	
sec-Butylbenzene	9.13		ug/L	10.00		91	70-130	1	25	
Styrene	8.63		ug/L	10.00		86	70-130	3	25	
tert-Butylbenzene	8.58		ug/L	10.00		86	70-130	0.4	25	
Tertiary-amyl methyl ether	8.28		ug/L	10.00		83	70-130	1	25	
Tetrachloroethene	9.59		ug/L	10.00		96	70-130	1	25	
Tetrahydrofuran	8.38		ug/L	10.00		84	70-130	5	25	
Toluene	9.86		ug/L	10.00		99	70-130	1	25	
trans-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130	0.2	25	
trans-1,3-Dichloropropene	7.84		ug/L	10.00		78	70-130	1	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
Trichloroethene	9.73		ug/L	10.00		97	70-130	1	25	
Trichlorofluoromethane	10.4		ug/L	10.00		104	70-130	2	25	
Trihalomethanes (Total)	40.2		mg/L							
Vinyl Acetate	13.4		ug/L	10.00		134	70-130	1	25	B+
Vinyl Chloride	9.62		ug/L	10.00		96	70-130	3	25	
Xylene O	9.47		ug/L	10.00		95	70-130	4	25	
Xylene P,M	19.2		ug/L	20.00		96	70-130	2	25	
Xylenes (Total)	28.6		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0276*		mg/L	*0.02500*		*110*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0255*		mg/L	*0.02500*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0286*		mg/L	*0.02500*		*114*	*70-130*			
Surrogate: Toluene-d8	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
Batch CJ52344 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	0.0059	0.0100	mg/L							J
Benzene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	0.0004	0.0020	mg/L							J
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Trihalomethanes (Total)	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
Surrogate: 1,2-Dichloroethane-d4	*0.0314*		mg/L	*0.02500*		*125*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0182*		mg/L	*0.02500*		*73*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0301*		mg/L	*0.02500*		*120*	*70-130*			
Surrogate: Toluene-d8	*0.0186*		mg/L	*0.02500*		*74*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130			
1,1,1-Trichloroethane	11.4		ug/L	10.00		114	70-130			
1,1,2,2-Tetrachloroethane	9.39		ug/L	10.00		94	70-130			
1,1,2-Trichloroethane	10.1		ug/L	10.00		101	70-130			
1,1-Dichloroethane	10.3		ug/L	10.00		103	70-130			
1,1-Dichloroethene	10.7		ug/L	10.00		107	70-130			
1,1-Dichloropropene	10.8		ug/L	10.00		108	70-130			
1,2,3-Trichlorobenzene	9.11		ug/L	10.00		91	70-130			
1,2,3-Trichloropropane	9.36		ug/L	10.00		94	70-130			
1,2,4-Trichlorobenzene	8.36		ug/L	10.00		84	70-130			
1,2,4-Trimethylbenzene	8.57		ug/L	10.00		86	70-130			
1,2-Dibromo-3-Chloropropane	9.93		ug/L	10.00		99	70-130			
1,2-Dibromoethane	9.85		ug/L	10.00		98	70-130			
1,2-Dichlorobenzene	9.56		ug/L	10.00		96	70-130			
1,2-Dichloroethane	11.0		ug/L	10.00		110	70-130			
1,2-Dichloropropane	9.62		ug/L	10.00		96	70-130			
1,3,5-Trimethylbenzene	9.20		ug/L	10.00		92	70-130			
1,3-Dichlorobenzene	10.0		ug/L	10.00		100	70-130			
1,3-Dichloropropane	10.8		ug/L	10.00		108	70-130			
1,4-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,4-Dioxane - Screen	193		ug/L	200.0		97	0-332			
1-Chlorohexane	8.53		ug/L	10.00		85	70-130			
2,2-Dichloropropane	12.2		ug/L	10.00		122	70-130			
2-Butanone	53.1		ug/L	50.00		106	70-130			
2-Chlorotoluene	8.96		ug/L	10.00		90	70-130			
2-Hexanone	54.8		ug/L	50.00		110	70-130			
4-Chlorotoluene	9.06		ug/L	10.00		91	70-130			
4-Isopropyltoluene	9.42		ug/L	10.00		94	70-130			
4-Methyl-2-Pentanone	52.1		ug/L	50.00		104	70-130			
Acetone	55.2		ug/L	50.00		110	70-130			
Benzene	10.3		ug/L	10.00		103	70-130			
Bromobenzene	9.80		ug/L	10.00		98	70-130			
Bromochloromethane	11.0		ug/L	10.00		110	70-130			
Bromodichloromethane	10.9		ug/L	10.00		109	70-130			
Bromoform	10.7		ug/L	10.00		107	70-130			
Bromomethane	6.33		ug/L	10.00		63	70-130			B-
Carbon Disulfide	9.98		ug/L	10.00		100	70-130			
Carbon Tetrachloride	11.8		ug/L	10.00		118	70-130			
Chlorobenzene	10.1		ug/L	10.00		101	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
Chloroethane	7.54		ug/L	10.00		75	70-130			
Chloroform	10.9		ug/L	10.00		109	70-130			
Chloromethane	9.34		ug/L	10.00		93	70-130			
cis-1,2-Dichloroethene	10.8		ug/L	10.00		108	70-130			
cis-1,3-Dichloropropene	8.50		ug/L	10.00		85	70-130			
Dibromochloromethane	9.98		ug/L	10.00		100	70-130			
Dibromomethane	10.5		ug/L	10.00		105	70-130			
Dichlorodifluoromethane	11.1		ug/L	10.00		111	70-130			
Diethyl Ether	9.85		ug/L	10.00		98	70-130			
Di-isopropyl ether	7.93		ug/L	10.00		79	70-130			
Ethyl tertiary-butyl ether	8.21		ug/L	10.00		82	70-130			
Ethylbenzene	9.05		ug/L	10.00		90	70-130			
Hexachlorobutadiene	12.3		ug/L	10.00		123	70-130			
Hexachloroethane	10.1		ug/L	10.00		101	70-130			
Isopropylbenzene	8.13		ug/L	10.00		81	70-130			
Methyl tert-Butyl Ether	8.96		ug/L	10.00		90	70-130			
Methylene Chloride	11.0		ug/L	10.00		110	70-130			
Naphthalene	8.19		ug/L	10.00		82	70-130			
n-Butylbenzene	8.42		ug/L	10.00		84	70-130			
n-Propylbenzene	8.14		ug/L	10.00		81	70-130			
sec-Butylbenzene	8.96		ug/L	10.00		90	70-130			
Styrene	8.53		ug/L	10.00		85	70-130			
tert-Butylbenzene	8.16		ug/L	10.00		82	70-130			
Tertiary-amyl methyl ether	8.08		ug/L	10.00		81	70-130			
Tetrachloroethene	10.0		ug/L	10.00		100	70-130			
Tetrahydrofuran	8.48		ug/L	10.00		85	70-130			
Toluene	9.92		ug/L	10.00		99	70-130			
trans-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130			
trans-1,3-Dichloropropene	8.16		ug/L	10.00		82	70-130			
Trichloroethene	10.1		ug/L	10.00		101	70-130			
Trichlorofluoromethane	11.1		ug/L	10.00		111	70-130			
Trihalomethanes (Total)	42.4		mg/L							
Vinyl Acetate	13.4		ug/L	10.00		134	70-130			B+
Vinyl Chloride	10.6		ug/L	10.00		106	70-130			
Xylene O	9.60		ug/L	10.00		96	70-130			
Xylene P,M	19.1		ug/L	20.00		96	70-130			
Xylenes (Total)	28.7		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0295*		mg/L	*0.02500*		*118*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0267*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0296*		mg/L	*0.02500*		*118*	*70-130*			
Surrogate: Toluene-d8	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130	0.6	25	
1,1,1-Trichloroethane	11.2		ug/L	10.00		112	70-130	2	25	
1,1,2,2-Tetrachloroethane	9.42		ug/L	10.00		94	70-130	0.3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
1,1,2-Trichloroethane	9.99		ug/L	10.00		100	70-130	1	25	
1,1-Dichloroethane	10.1		ug/L	10.00		101	70-130	1	25	
1,1-Dichloroethene	10.6		ug/L	10.00		106	70-130	1	25	
1,1-Dichloropropene	10.7		ug/L	10.00		107	70-130	0.8	25	
1,2,3-Trichlorobenzene	8.73		ug/L	10.00		87	70-130	4	25	
1,2,3-Trichloropropane	9.02		ug/L	10.00		90	70-130	4	25	
1,2,4-Trichlorobenzene	8.16		ug/L	10.00		82	70-130	2	25	
1,2,4-Trimethylbenzene	8.50		ug/L	10.00		85	70-130	0.8	25	
1,2-Dibromo-3-Chloropropane	9.25		ug/L	10.00		92	70-130	7	25	
1,2-Dibromoethane	9.62		ug/L	10.00		96	70-130	2	25	
1,2-Dichlorobenzene	9.40		ug/L	10.00		94	70-130	2	25	
1,2-Dichloroethane	10.8		ug/L	10.00		108	70-130	2	25	
1,2-Dichloropropane	9.45		ug/L	10.00		94	70-130	2	25	
1,3,5-Trimethylbenzene	9.03		ug/L	10.00		90	70-130	2	25	
1,3-Dichlorobenzene	10.1		ug/L	10.00		101	70-130	0.5	25	
1,3-Dichloropropane	10.4		ug/L	10.00		104	70-130	3	25	
1,4-Dichlorobenzene	9.99		ug/L	10.00		100	70-130	5	25	
1,4-Dioxane - Screen	174		ug/L	200.0		87	0-332	11	200	
1-Chlorohexane	8.62		ug/L	10.00		86	70-130	1	25	
2,2-Dichloropropane	11.8		ug/L	10.00		118	70-130	3	25	
2-Butanone	51.9		ug/L	50.00		104	70-130	2	25	
2-Chlorotoluene	8.85		ug/L	10.00		88	70-130	1	25	
2-Hexanone	50.4		ug/L	50.00		101	70-130	8	25	
4-Chlorotoluene	9.13		ug/L	10.00		91	70-130	0.8	25	
4-Isopropyltoluene	9.20		ug/L	10.00		92	70-130	2	25	
4-Methyl-2-Pentanone	47.0		ug/L	50.00		94	70-130	10	25	
Acetone	59.0		ug/L	50.00		118	70-130	7	25	
Benzene	10.2		ug/L	10.00		102	70-130	2	25	
Bromobenzene	9.88		ug/L	10.00		99	70-130	0.8	25	
Bromochloromethane	10.9		ug/L	10.00		109	70-130	1	25	
Bromodichloromethane	10.5		ug/L	10.00		105	70-130	3	25	
Bromoform	10.4		ug/L	10.00		104	70-130	3	25	
Bromomethane	6.24		ug/L	10.00		62	70-130	1	25	B-
Carbon Disulfide	9.72		ug/L	10.00		97	70-130	3	25	
Carbon Tetrachloride	11.6		ug/L	10.00		116	70-130	2	25	
Chlorobenzene	9.91		ug/L	10.00		99	70-130	2	25	
Chloroethane	9.72		ug/L	10.00		97	70-130	25	25	
Chloroform	10.6		ug/L	10.00		106	70-130	2	25	
Chloromethane	9.06		ug/L	10.00		91	70-130	3	25	
cis-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130	1	25	
cis-1,3-Dichloropropene	8.24		ug/L	10.00		82	70-130	3	25	
Dibromochloromethane	9.66		ug/L	10.00		97	70-130	3	25	
Dibromomethane	10.4		ug/L	10.00		104	70-130	0.1	25	
Dichlorodifluoromethane	10.6		ug/L	10.00		106	70-130	5	25	
Diethyl Ether	9.40		ug/L	10.00		94	70-130	5	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1510463

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
Di-isopropyl ether	7.94		ug/L	10.00		79	70-130	0.1	25	
Ethyl tertiary-butyl ether	8.22		ug/L	10.00		82	70-130	0.1	25	
Ethylbenzene	8.98		ug/L	10.00		90	70-130	0.8	25	
Hexachlorobutadiene	11.5		ug/L	10.00		115	70-130	7	25	
Hexachloroethane	10.1		ug/L	10.00		101	70-130	0	25	
Isopropylbenzene	8.08		ug/L	10.00		81	70-130	0.6	25	
Methyl tert-Butyl Ether	8.76		ug/L	10.00		88	70-130	2	25	
Methylene Chloride	11.0		ug/L	10.00		110	70-130	0.5	25	
Naphthalene	7.60		ug/L	10.00		76	70-130	7	25	
n-Butylbenzene	8.19		ug/L	10.00		82	70-130	3	25	
n-Propylbenzene	8.13		ug/L	10.00		81	70-130	0.1	25	
sec-Butylbenzene	8.75		ug/L	10.00		88	70-130	2	25	
Styrene	8.44		ug/L	10.00		84	70-130	1	25	
tert-Butylbenzene	8.14		ug/L	10.00		81	70-130	0.2	25	
Tertiary-amyl methyl ether	8.15		ug/L	10.00		82	70-130	0.9	25	
Tetrachloroethene	9.87		ug/L	10.00		99	70-130	2	25	
Tetrahydrofuran	8.65		ug/L	10.00		86	70-130	2	25	
Toluene	9.85		ug/L	10.00		98	70-130	0.7	25	
trans-1,2-Dichloroethene	10.1		ug/L	10.00		101	70-130	1	25	
trans-1,3-Dichloropropene	8.02		ug/L	10.00		80	70-130	2	25	
Trichloroethene	9.80		ug/L	10.00		98	70-130	3	25	
Trichlorofluoromethane	10.9		ug/L	10.00		109	70-130	2	25	
Trihalomethanes (Total)	41.2		mg/L							
Vinyl Acetate	12.7		ug/L	10.00		127	70-130	5	25	
Vinyl Chloride	10.5		ug/L	10.00		105	70-130	0.4	25	
Xylene O	9.41		ug/L	10.00		94	70-130	2	25	
Xylene P,M	19.0		ug/L	20.00		95	70-130	0.9	25	
Xylenes (Total)	28.4		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0289*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0260*		mg/L	*0.02500*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0290*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: Toluene-d8	*0.0243*		mg/L	*0.02500*		*97*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

Notes and Definitions

U	Analyte included in the analysis, but not detected
J	Reported between MDL and MRL
E	Reported above the quantitation limit; Estimated value (E).
D	Diluted.
CD-	Continuing Calibration %Diff/Drift is below control limit (CD-).
B+	Blank Spike recovery is above upper control limit (B+).
B-	Blank Spike recovery is below lower control limit (B-).
B	Present in Method Blank (B).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510463

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: Client

ESS Project ID: 15100463
Date Project Due: 10/23/15
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? * No
   Air No.:
2. Were Custody Seals Present? No
3. Were Custody Seals Intact? N/A
4. Is Radiation count < 100 CPM? Yes
5. Is a cooler present? Yes
   Cooler Temp: **3.4**
   Iced With: **Ice**
6. Was COC included with samples? Yes
7. Was COC signed and dated by client? Yes
8. Does the COC match the sample Yes
9. Is COC complete and correct? Yes
10. Are the samples properly preserved? Yes
11. Proper sample containers used? Yes
12. Any air bubbles in the VOA vials? No
13. Holding times exceeded? No
14. Sufficient sample volumes? Yes
15. Any Subcontracting needed? No
16. Are ESS labels on correct containers? Yes | No
17. Were samples received intact? Yes | No
    ESS Sample IDs: _____
    Sub Lab: _____
    Analysis: _____
    TAT: _____
18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	40 ml - VOA	3	HCL
2	Yes	40 ml - VOA	3	HCL
3	Yes	40 ml - VOA	3	HCL
4	Yes	40 ml - VOA	3	HCL
5	Yes	40 ml - VOA	3	HCL
6	Yes	40 ml - VOA	3	HCL
7	Yes	40 ml - VOA	3	HCL
8	Yes	40 ml - VOA	3	HCL

Completed By: _____ Date/Time: 10/16/15 1554
Reviewed By: _____ Date/Time: 10/16/15 1729

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue,Cranston RI 02910-2211
Tel. (401)461-7181 Fax (401)461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 15104163

Turn Time ✓ Standard Other_____

Regulatory State: MA (RI) CT NH NJ NY ME Other_____

Reporting Limits - GB

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables *Excel Access PDF

Co. Name: GZA	Project #: 33554.00	Project Name: 642 Allens Avenue	
Contact Person: Meg Kilpatrick	Proj. Location: 642 Allens Avenue Providence		
Address: 530 Broadway	City, State: Providence RI	Zip: 02909	PO #:
Tel.	email:		

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: VOCs								
1	10/15/15	9:20	G	GW	VitB-4	2	3	V	40mL	X								
2	10/15/15	16:10	G	GW	GZ-301D	2	3	V	40mL	X								
3	10/15/15	16:10	G	GW	GZ-304D	2	3	V	40mL	X								
4	10/15/15	14:30	G	GW	GZ-309D	2	3	V	40mL	X								
5	10/16/15	11:10	G	GW	GZ-319S	2	3	V	40mL	X								
6	10/16/15	12:00	G	GW	GZ-314D	2	3	V	40mL	X								
7	10/16/15	8:00	G	GW	BD 10 16 15	2	3	V	40mL	X								

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: ~~13.6~~ 3.4 FCB 10/16/15 JL 10/16/15

Internal Use Only
[ ] Pickup
[ ] Technician (DO)

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: Sophia Narkiewicz & Sara Haught

Comments: Nérid rates apply

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
10/16/15 15:20	10/16/15 1520		
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges sampels were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

Report Method Blank & Laboratory Control Sample Results

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston RI 02910-2211
Tel. (401)461-7181 Fax (401)461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1510463

Turn Time ___X___ Standard Other _____

Regulatory State: MA RI CT NH NJ NY ME Other _____

Reporting Limits - GB

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other _____

Electonic Deliverables *Excel Access PDF

Co. Name: GZA	Project #: 33554.00	Project Name: 62 Allens Ave	
Contact Person: Meg Kilpatrick	Proj. Location: 62 Allens Ave Providence		
Address: 530 Broadway	City, State: Providence RI	Zip: 02909	PO #:
Tel.	email:		

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: VOCs
8	10/16/15		G	GW	REA-23	2	3	VOA	40mL	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ___✓___ Yes _____ No

Seals Intact _____ Yes _____ No NA: ✓

Cooler Temperature: ~~3.4~~ ~~13.6~~ Ice JE 10/16/15 JE 10/16/15

Internal Use Only

[ ] Pickup

[ ] Technician

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: Sara Haupt & Sophia Narkiewicz

Comments: NGrid rates apply

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
10/16/15 15:20	10/16/15 1520		
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges sampels were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

Report Method Blank & Laboratory Control Sample Results

CERTIFICATE OF ANALYSIS

Meg Kilpatrick
GZA GeoEnvironmental, Inc.
530 Broadway
Providence, RI 02909

RE: 642 Allens Ave (03.0033554.00)
ESS Laboratory Work Order Number: 1510464

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 1:47 pm, Oct 27, 2015

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

SAMPLE RECEIPT

The following samples were received on October 16, 2015 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1510464-01	RCA-1	Ground Water	8260B
1510464-02	RCA-3	Ground Water	8260B
1510464-03	RCA-11	Ground Water	8260B
1510464-04	RCA-12R	Ground Water	8260B
1510464-05	RCA-22	Ground Water	8260B
1510464-06	RCA-38	Ground Water	8260B
1510464-07	VHB-3	Ground Water	8260B
1510464-08	VHB-1	Ground Water	8260B
1510464-09	VHB-6	Ground Water	8260B
1510464-10	BD 101515	Ground Water	8260B
1510464-11	VHB-7	Ground Water	8260B
1510464-12	VHB-8R	Ground Water	8260B
1510464-13	VHB-10	Ground Water	8260B
1510464-14	Trip Blank	Aqueous	8260B

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

PROJECT NARRATIVE

8260B Volatile Organic Compounds

1510464-01	**Present in Method Blank (B).**
	Naphthalene
1510464-02	**Reported above the quantitation limit; Estimated value (E).**
	1,2,4-Trimethylbenzene
1510464-03	**Present in Method Blank (B).**
	Naphthalene
1510464-04	**Present in Method Blank (B).**
	Naphthalene
1510464-06	**Present in Method Blank (B).**
	Naphthalene
1510464-09	**Present in Method Blank (B).**
	Naphthalene
1510464-10	**Present in Method Blank (B).**
	Naphthalene
1510464-11	**Reported above the quantitation limit; Estimated value (E).**
	1,2,4-Trimethylbenzene
CJ52048-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (60% @ 70-130%)
CJ52048-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (53% @ 70-130%)
CJ52153-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (137% @ 70-130%)
CJ52153-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (63% @ 70-130%)
CJ52153-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (136% @ 70-130%)
CJ52153-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (62% @ 70-130%)
CJ52253-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (136% @ 70-130%)
CJ52253-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (51% @ 70-130%)
CJ52253-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (134% @ 70-130%)
CJ52253-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (51% @ 70-130%)
CJ52344-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (134% @ 70-130%)
CJ52344-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (63% @ 70-130%)

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1510464

CJ52344-BSD1 **Blank Spike recovery is below lower control limit (B-).**
Bromomethane (62% @ 70-130%)

CYJ0261-CCV1 **Continuing Calibration %Diff/Drift is below control limit (CD-).**
Bromomethane (52% @ 30%), Tertiary-amyl methyl ether (31% @ 30%)

CYJ0277-CCV1 **Continuing Calibration %Diff/Drift is below control limit (CD-).**
Bromomethane (43% @ 30%)

CYJ0296-CCV1 **Continuing Calibration %Diff/Drift is below control limit (CD-).**
Bromomethane (59% @ 30%)

CYJ0319-CCV1 **Continuing Calibration %Diff/Drift is below control limit (CD-).**
Bromomethane (45% @ 30%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 10/15/15 15:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,1-Dichloroethane	**J 0.0004** (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Acetone	ND (0.0100)	0.0027	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Benzene	**0.0028** (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 10/15/15 15:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Bromoform	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Chloroform	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
cis-1,2-Dichloroethene	**0.0056** (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Methyl tert-Butyl Ether	**J 0.0006** (0.0010)	0.0003	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Naphthalene	**B, J 0.0008** (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Styrene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 10/15/15 15:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Toluene	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Vinyl Chloride	**0.0074** (0.0010)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Xylene O	ND (0.0010)	0.0001	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/20/15 19:58	CYJ0261	CJ52048
Xylenes (Total)	ND (0.0020)		8260B		1	10/20/15 19:58		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/20/15 19:58		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*110 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*75 %*		*70-130*
Surrogate: Dibromofluoromethane	*110 %*		*70-130*
Surrogate: Toluene-d8	*83 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-3
Date Sampled: 10/15/15 09:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,2,4-Trimethylbenzene	**E 0.148** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,3,5-Trimethylbenzene	**0.0240** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
4-Isopropyltoluene	**0.0059** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Acetone	ND (0.0100)	0.0027	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Benzene	**0.116** (0.100)	0.0100	8260B		100	10/22/15 22:18	CYJ0319	CJ52344
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-3
Date Sampled: 10/15/15 09:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Bromoform	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Chloroform	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Ethylbenzene	**0.0841** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Isopropylbenzene	**0.0228** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Methyl tert-Butyl Ether	**J 0.0004** (0.0010)	0.0003	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Naphthalene	**0.813** (0.100)	0.0200	8260B		100	10/22/15 22:18	CYJ0319	CJ52344
n-Butylbenzene	**0.0080** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
n-Propylbenzene	**0.0094** (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
sec-Butylbenzene	**0.0021** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Styrene	**J 0.0009** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
tert-Butylbenzene	**J 0.0006** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-3
Date Sampled: 10/15/15 09:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Toluene	**0.0120** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Xylene O	**0.0525** (0.0010)	0.0001	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Xylene P,M	**0.0409** (0.0020)	0.0002	8260B		1	10/23/15 22:29	CYJ0319	CJ52344
Xylenes (Total)	**0.0934** (0.0020)		8260B		1	10/23/15 22:29		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/23/15 22:29		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*96 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*103 %*		*70-130*
Surrogate: Dibromofluoromethane	*94 %*		*70-130*
Surrogate: Toluene-d8	*84 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-11
Date Sampled: 10/15/15 12:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,2,4-Trimethylbenzene	**J 0.0001** (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Acetone	ND (0.0100)	0.0027	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Benzene	**J 0.0007** (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-11
Date Sampled: 10/15/15 12:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Bromoform	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Chloroform	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Naphthalene	**B 0.0051** (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Styrene	**J 0.0003** (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-11
Date Sampled: 10/15/15 12:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Toluene	**J 0.0010** (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Xylene O	**J 0.0002** (0.0010)	0.0001	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Xylene P,M	**J 0.0004** (0.0020)	0.0002	8260B		1	10/20/15 20:23	CYJ0261	CJ52048
Xylenes (Total)	ND (0.0020)		8260B		1	10/20/15 20:23		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/20/15 20:23		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*77 %*		*70-130*
Surrogate: Dibromofluoromethane	*116 %*		*70-130*
Surrogate: Toluene-d8	*78 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 10/15/15 15:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Acetone	ND (0.0100)	0.0027	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Benzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 10/15/15 15:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Bromoform	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Chloroform	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Methyl tert-Butyl Ether	**J 0.0006** (0.0010)	0.0003	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Naphthalene	**B, J 0.0007** (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Styrene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 10/15/15 15:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Toluene	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Vinyl Chloride	**J 0.0006** (0.0010)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Xylene O	ND (0.0010)	0.0001	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/20/15 20:49	CYJ0261	CJ52048
Xylenes (Total)	ND (0.0020)		8260B		1	10/20/15 20:49		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/20/15 20:49		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*114 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*76 %*		*70-130*
Surrogate: Dibromofluoromethane	*115 %*		*70-130*
Surrogate: Toluene-d8	*77 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-22
Date Sampled: 10/16/15 09:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,2,4-Trimethylbenzene	**0.0055** (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Acetone	ND (0.0100)	0.0027	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Benzene	**1.88** (0.0500)	0.0050	8260B		50	10/23/15 17:28	CYJ0319	CJ52344
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-22
Date Sampled: 10/16/15 09:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Bromoform	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Chloroform	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Ethylbenzene	**0.0630** (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Isopropylbenzene	**0.0404** (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Naphthalene	**0.0152** (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
n-Propylbenzene	**0.0086** (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
sec-Butylbenzene	**0.0015** (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Styrene	**J 0.0001** (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
tert-Butylbenzene	**J 0.0003** (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-22
Date Sampled: 10/16/15 09:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Toluene	**0.0024** (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Xylene O	**0.0292** (0.0010)	0.0001	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Xylene P,M	**0.0039** (0.0020)	0.0002	8260B		1	10/23/15 19:59	CYJ0319	CJ52344
Xylenes (Total)	**0.0332** (0.0020)		8260B		1	10/23/15 19:59		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/23/15 19:59		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*113 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*113 %*		*70-130*
Surrogate: Dibromofluoromethane	*107 %*		*70-130*
Surrogate: Toluene-d8	*79 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-38
Date Sampled: 10/16/15 09:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Acetone	ND (0.0100)	0.0027	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Benzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-38
Date Sampled: 10/16/15 09:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Bromoform	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Chloroform	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Isopropylbenzene	**J 0.0001** (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Naphthalene	**B, J 0.0003** (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Styrene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-38
Date Sampled: 10/16/15 09:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Toluene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Xylene O	ND (0.0010)	0.0001	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/21/15 15:10	CYJ0277	CJ52153
Xylenes (Total)	ND (0.0020)		8260B		1	10/21/15 15:10		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/21/15 15:10		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*118 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*76 %*		*70-130*
Surrogate: Dibromofluoromethane	*116 %*		*70-130*
Surrogate: Toluene-d8	*75 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-3
Date Sampled: 10/15/15 10:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Acetone	ND (0.0100)	0.0027	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Benzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-3
Date Sampled: 10/15/15 10:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Bromoform	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Chloroform	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Naphthalene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Styrene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-3
Date Sampled: 10/15/15 10:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Toluene	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Xylene O	ND (0.0010)	0.0001	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/21/15 15:35	CYJ0277	CJ52153
Xylenes (Total)	ND (0.0020)		8260B		1	10/21/15 15:35		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/21/15 15:35		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*113 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*76 %*		*70-130*
Surrogate: Dibromofluoromethane	*107 %*		*70-130*
Surrogate: Toluene-d8	*78 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-1
Date Sampled: 10/15/15 14:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,2,4-Trimethylbenzene	**J 0.0004** (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,3,5-Trimethylbenzene	**J 0.0001** (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Acetone	ND (0.0100)	0.0027	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Benzene	**J 0.0002** (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-1
Date Sampled: 10/15/15 14:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Bromoform	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Chloroform	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Isopropylbenzene	**0.0119** (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Naphthalene	**0.0016** (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
n-Propylbenzene	**0.0024** (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
sec-Butylbenzene	**0.0038** (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Styrene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
tert-Butylbenzene	**0.0010** (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-1
Date Sampled: 10/15/15 14:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Toluene	ND (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Xylene O	**J 0.0008** (0.0010)	0.0001	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Xylene P,M	**J 0.0004** (0.0020)	0.0002	8260B		1	10/23/15 15:48	CYJ0319	CJ52344
Xylenes (Total)	ND (0.0020)		8260B		1	10/23/15 15:48		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/23/15 15:48		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*128 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*103 %*		*70-130*
Surrogate: Dibromofluoromethane	*120 %*		*70-130*
Surrogate: Toluene-d8	*72 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-6
Date Sampled: 10/15/15 10:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Acetone	ND (0.0100)	0.0027	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Benzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-6
Date Sampled: 10/15/15 10:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Bromoform	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Chloroform	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Isopropylbenzene	**J 0.0004** (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Naphthalene	**B, J 0.0003** (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Styrene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-6
Date Sampled: 10/15/15 10:25
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Toluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Xylene O	ND (0.0010)	0.0001	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/21/15 16:00	CYJ0277	CJ52153
Xylenes (Total)	ND (0.0020)		8260B		1	10/21/15 16:00		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/21/15 16:00		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*115 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*78 %*		*70-130*
Surrogate: Dibromofluoromethane	*113 %*		*70-130*
Surrogate: Toluene-d8	*76 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD 101515
Date Sampled: 10/15/15 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Acetone	ND (0.0100)	0.0027	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Benzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD 101515
Date Sampled: 10/15/15 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Bromoform	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Chloroform	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Isopropylbenzene	**J 0.0004** (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Naphthalene	**B, J 0.0003** (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Styrene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD 101515
Date Sampled: 10/15/15 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Toluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Xylene O	ND (0.0010)	0.0001	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/21/15 16:26	CYJ0277	CJ52153
Xylenes (Total)	ND (0.0020)		8260B		1	10/21/15 16:26		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/21/15 16:26		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*113 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*77 %*		*70-130*
Surrogate: Dibromofluoromethane	*112 %*		*70-130*
Surrogate: Toluene-d8	*77 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-7
Date Sampled: 10/15/15 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,2,4-Trimethylbenzene	**E 0.119** (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,3,5-Trimethylbenzene	**0.0422** (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Acetone	ND (0.0100)	0.0027	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Benzene	**0.0485** (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-7
Date Sampled: 10/15/15 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Bromoform	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Carbon Disulfide	**0.0022** (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Chloroform	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Ethylbenzene	**0.200** (0.100)	0.0100	8260B		100	10/22/15 22:43	CYJ0319	CJ52344
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Isopropylbenzene	**0.0110** (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Naphthalene	**5.16** (0.100)	0.0200	8260B		100	10/22/15 22:43	CYJ0319	CJ52344
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
n-Propylbenzene	**0.0024** (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Styrene	**0.0011** (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-7
Date Sampled: 10/15/15 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Toluene	**0.0551** (0.0010)	0.0001	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/23/15 23:19	CYJ0319	CJ52344
Xylene O	**0.132** (0.100)	0.0100	8260B		100	10/22/15 22:43	CYJ0319	CJ52344
Xylene P,M	**0.201** (0.200)	0.0200	8260B		100	10/22/15 22:43	CYJ0319	CJ52344
Xylenes (Total)	**0.333** (0.200)		8260B		100	10/22/15 22:43		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/23/15 23:19		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*83 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*84 %*		*70-130*
Surrogate: Toluene-d8	*91 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-8R
Date Sampled: 10/15/15 12:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Acetone	ND (0.0100)	0.0027	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Benzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-8R
Date Sampled: 10/15/15 12:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Bromoform	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Chloroform	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Naphthalene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Styrene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-8R
Date Sampled: 10/15/15 12:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Toluene	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Xylene O	ND (0.0010)	0.0001	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/21/15 16:51	CYJ0277	CJ52153
Xylenes (Total)	ND (0.0020)		8260B		1	10/21/15 16:51		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/21/15 16:51		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*114 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*74 %*		*70-130*
Surrogate: Dibromofluoromethane	*111 %*		*70-130*
Surrogate: Toluene-d8	*78 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-10
Date Sampled: 10/15/15 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,2,4-Trimethylbenzene	**J 0.0009** (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Acetone	ND (0.0100)	0.0027	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Benzene	**0.162** (0.100)	0.0100	8260B		100	10/22/15 20:11	CYJ0319	CJ52344
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-10
Date Sampled: 10/15/15 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Bromoform	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Chloroform	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Ethylbenzene	**0.0021** (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Isopropylbenzene	**0.0042** (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Naphthalene	**0.0413** (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
n-Propylbenzene	**0.0013** (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
sec-Butylbenzene	**J 0.0003** (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Styrene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-10
Date Sampled: 10/15/15 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Toluene	**0.0015** (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Xylene O	**0.0044** (0.0010)	0.0001	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Xylene P,M	**J 0.0007** (0.0020)	0.0002	8260B		1	10/23/15 20:49	CYJ0319	CJ52344
Xylenes (Total)	**0.0051** (0.0020)		8260B		1	10/23/15 20:49		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/23/15 20:49		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*105 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*102 %*		*70-130*
Surrogate: Toluene-d8	*84 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 10/15/15 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-14
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Acetone	ND (0.0100)	0.0027	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Benzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 10/15/15 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-14
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Bromoform	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Chloroform	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Methylene Chloride	**J 0.0008** (0.0020)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Naphthalene	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Styrene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 10/15/15 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510464
ESS Laboratory Sample ID: 1510464-14
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Toluene	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Xylene O	ND (0.0010)	0.0001	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/22/15 14:42	CYJ0296	CJ52253
Xylenes (Total)	ND (0.0020)		8260B		1	10/22/15 14:42		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/22/15 14:42		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*73 %*		*70-130*
Surrogate: Dibromofluoromethane	*113 %*		*70-130*
Surrogate: Toluene-d8	*76 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	0.0003	0.0010	mg/L							J
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Trihalomethanes (Total)	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0290*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0189*		mg/L	*0.02500*		*76*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0275*		mg/L	*0.02500*		*110*	*70-130*			
Surrogate: Toluene-d8	*0.0194*		mg/L	*0.02500*		*78*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.83		ug/L	10.00		98	70-130			
1,1,1-Trichloroethane	10.4		ug/L	10.00		104	70-130			
1,1,2,2-Tetrachloroethane	9.54		ug/L	10.00		95	70-130			
1,1,2-Trichloroethane	9.61		ug/L	10.00		96	70-130			
1,1-Dichloroethane	9.79		ug/L	10.00		98	70-130			
1,1-Dichloroethene	10.7		ug/L	10.00		107	70-130			
1,1-Dichloropropene	10.3		ug/L	10.00		103	70-130			
1,2,3-Trichlorobenzene	9.10		ug/L	10.00		91	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
1,2,3-Trichloropropane	9.02		ug/L	10.00		90	70-130			
1,2,4-Trichlorobenzene	8.52		ug/L	10.00		85	70-130			
1,2,4-Trimethylbenzene	8.70		ug/L	10.00		87	70-130			
1,2-Dibromo-3-Chloropropane	8.91		ug/L	10.00		89	70-130			
1,2-Dibromoethane	9.69		ug/L	10.00		97	70-130			
1,2-Dichlorobenzene	9.61		ug/L	10.00		96	70-130			
1,2-Dichloroethane	10.4		ug/L	10.00		104	70-130			
1,2-Dichloropropane	9.45		ug/L	10.00		94	70-130			
1,3,5-Trimethylbenzene	9.24		ug/L	10.00		92	70-130			
1,3-Dichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,3-Dichloropropane	10.5		ug/L	10.00		105	70-130			
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,4-Dioxane - Screen	182		ug/L	200.0		91	0-332			
1-Chlorohexane	8.71		ug/L	10.00		87	70-130			
2,2-Dichloropropane	10.8		ug/L	10.00		108	70-130			
2-Butanone	48.2		ug/L	50.00		96	70-130			
2-Chlorotoluene	9.23		ug/L	10.00		92	70-130			
2-Hexanone	49.4		ug/L	50.00		99	70-130			
4-Chlorotoluene	9.30		ug/L	10.00		93	70-130			
4-Isopropyltoluene	9.18		ug/L	10.00		92	70-130			
4-Methyl-2-Pentanone	46.8		ug/L	50.00		94	70-130			
Acetone	56.4		ug/L	50.00		113	70-130			
Benzene	10.0		ug/L	10.00		100	70-130			
Bromobenzene	9.99		ug/L	10.00		100	70-130			
Bromochloromethane	10.6		ug/L	10.00		106	70-130			
Bromodichloromethane	10.1		ug/L	10.00		101	70-130			
Bromoform	10.2		ug/L	10.00		102	70-130			
Bromomethane	5.95		ug/L	10.00		60	70-130			B-
Carbon Disulfide	9.61		ug/L	10.00		96	70-130			
Carbon Tetrachloride	10.7		ug/L	10.00		107	70-130			
Chlorobenzene	9.90		ug/L	10.00		99	70-130			
Chloroethane	9.65		ug/L	10.00		96	70-130			
Chloroform	10.3		ug/L	10.00		103	70-130			
Chloromethane	8.25		ug/L	10.00		82	70-130			
cis-1,2-Dichloroethene	10.6		ug/L	10.00		106	70-130			
cis-1,3-Dichloropropene	8.35		ug/L	10.00		84	70-130			
Dibromochloromethane	9.72		ug/L	10.00		97	70-130			
Dibromomethane	10.0		ug/L	10.00		100	70-130			
Dichlorodifluoromethane	9.13		ug/L	10.00		91	70-130			
Diethyl Ether	9.63		ug/L	10.00		96	70-130			
Di-isopropyl ether	7.99		ug/L	10.00		80	70-130			
Ethyl tertiary-butyl ether	7.82		ug/L	10.00		78	70-130			
Ethylbenzene	9.20		ug/L	10.00		92	70-130			
Hexachlorobutadiene	12.1		ug/L	10.00		121	70-130			
Hexachloroethane	9.92		ug/L	10.00		99	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
Isopropylbenzene	8.49		ug/L	10.00		85	70-130			
Methyl tert-Butyl Ether	8.81		ug/L	10.00		88	70-130			
Methylene Chloride	10.4		ug/L	10.00		104	70-130			
Naphthalene	8.81		ug/L	10.00		88	70-130			
n-Butylbenzene	8.33		ug/L	10.00		83	70-130			
n-Propylbenzene	8.39		ug/L	10.00		84	70-130			
sec-Butylbenzene	9.04		ug/L	10.00		90	70-130			
Styrene	8.69		ug/L	10.00		87	70-130			
tert-Butylbenzene	8.46		ug/L	10.00		85	70-130			
Tertiary-amyl methyl ether	7.47		ug/L	10.00		75	70-130			
Tetrachloroethene	9.71		ug/L	10.00		97	70-130			
Tetrahydrofuran	8.84		ug/L	10.00		88	70-130			
Toluene	9.86		ug/L	10.00		99	70-130			
trans-1,2-Dichloroethene	10.3		ug/L	10.00		103	70-130			
trans-1,3-Dichloropropene	7.59		ug/L	10.00		76	70-130			
Trichloroethene	9.79		ug/L	10.00		98	70-130			
Trichlorofluoromethane	10.2		ug/L	10.00		102	70-130			
Trihalomethanes (Total)	40.4		mg/L							
Vinyl Acetate	12.4		ug/L	10.00		124	70-130			
Vinyl Chloride	9.54		ug/L	10.00		95	70-130			
Xylene O	9.61		ug/L	10.00		96	70-130			
Xylene P,M	19.2		ug/L	20.00		96	70-130			
Xylenes (Total)	28.8		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0270*		mg/L	*0.02500*		*108*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0260*		mg/L	*0.02500*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0284*		mg/L	*0.02500*		*114*	*70-130*			
Surrogate: Toluene-d8	*0.0253*		mg/L	*0.02500*		*101*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.1		ug/L	10.00		101	70-130	2	25	
1,1,1-Trichloroethane	10.4		ug/L	10.00		104	70-130	0.2	25	
1,1,2,2-Tetrachloroethane	9.38		ug/L	10.00		94	70-130	2	25	
1,1,2-Trichloroethane	9.52		ug/L	10.00		95	70-130	0.9	25	
1,1-Dichloroethane	9.53		ug/L	10.00		95	70-130	3	25	
1,1-Dichloroethene	10.6		ug/L	10.00		106	70-130	1	25	
1,1-Dichloropropene	10.3		ug/L	10.00		103	70-130	0.5	25	
1,2,3-Trichlorobenzene	8.76		ug/L	10.00		88	70-130	4	25	
1,2,3-Trichloropropane	8.94		ug/L	10.00		89	70-130	0.9	25	
1,2,4-Trichlorobenzene	8.19		ug/L	10.00		82	70-130	4	25	
1,2,4-Trimethylbenzene	8.57		ug/L	10.00		86	70-130	2	25	
1,2-Dibromo-3-Chloropropane	8.47		ug/L	10.00		85	70-130	5	25	
1,2-Dibromoethane	9.89		ug/L	10.00		99	70-130	2	25	
1,2-Dichlorobenzene	9.53		ug/L	10.00		95	70-130	0.8	25	
1,2-Dichloroethane	10.0		ug/L	10.00		100	70-130	4	25	
1,2-Dichloropropane	9.35		ug/L	10.00		94	70-130	1	25	
1,3,5-Trimethylbenzene	9.24		ug/L	10.00		92	70-130	0	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
1,3-Dichlorobenzene	9.80		ug/L	10.00		98	70-130	4	25	
1,3-Dichloropropane	10.8		ug/L	10.00		108	70-130	2	25	
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	0.6	25	
1,4-Dioxane - Screen	177		ug/L	200.0		89	0-332	2	200	
1-Chlorohexane	8.94		ug/L	10.00		89	70-130	3	25	
2,2-Dichloropropane	10.6		ug/L	10.00		106	70-130	2	25	
2-Butanone	47.2		ug/L	50.00		94	70-130	2	25	
2-Chlorotoluene	9.28		ug/L	10.00		93	70-130	0.5	25	
2-Hexanone	48.6		ug/L	50.00		97	70-130	2	25	
4-Chlorotoluene	9.16		ug/L	10.00		92	70-130	2	25	
4-Isopropyltoluene	9.05		ug/L	10.00		90	70-130	1	25	
4-Methyl-2-Pentanone	45.9		ug/L	50.00		92	70-130	2	25	
Acetone	47.4		ug/L	50.00		95	70-130	17	25	
Benzene	9.87		ug/L	10.00		99	70-130	1	25	
Bromobenzene	10.0		ug/L	10.00		100	70-130	0.1	25	
Bromochloromethane	10.4		ug/L	10.00		104	70-130	2	25	
Bromodichloromethane	9.74		ug/L	10.00		97	70-130	4	25	
Bromoform	10.2		ug/L	10.00		102	70-130	0.9	25	
Bromomethane	5.30		ug/L	10.00		53	70-130	12	25	B-
Carbon Disulfide	9.47		ug/L	10.00		95	70-130	1	25	
Carbon Tetrachloride	10.5		ug/L	10.00		105	70-130	2	25	
Chlorobenzene	10.0		ug/L	10.00		100	70-130	1	25	
Chloroethane	9.85		ug/L	10.00		98	70-130	2	25	
Chloroform	10.0		ug/L	10.00		100	70-130	3	25	
Chloromethane	8.04		ug/L	10.00		80	70-130	3	25	
cis-1,2-Dichloroethene	10.4		ug/L	10.00		104	70-130	2	25	
cis-1,3-Dichloropropene	8.11		ug/L	10.00		81	70-130	3	25	
Dibromochloromethane	9.65		ug/L	10.00		96	70-130	0.7	25	
Dibromomethane	9.77		ug/L	10.00		98	70-130	3	25	
Dichlorodifluoromethane	9.15		ug/L	10.00		92	70-130	0.2	25	
Diethyl Ether	9.34		ug/L	10.00		93	70-130	3	25	
Di-isopropyl ether	8.02		ug/L	10.00		80	70-130	0.4	25	
Ethyl tertiary-butyl ether	7.79		ug/L	10.00		78	70-130	0.4	25	
Ethylbenzene	9.21		ug/L	10.00		92	70-130	0.1	25	
Hexachlorobutadiene	11.4		ug/L	10.00		114	70-130	6	25	
Hexachloroethane	9.87		ug/L	10.00		99	70-130	0.5	25	
Isopropylbenzene	8.44		ug/L	10.00		84	70-130	0.6	25	
Methyl tert-Butyl Ether	8.60		ug/L	10.00		86	70-130	2	25	
Methylene Chloride	10.3		ug/L	10.00		103	70-130	2	25	
Naphthalene	8.24		ug/L	10.00		82	70-130	7	25	
n-Butylbenzene	8.06		ug/L	10.00		81	70-130	3	25	
n-Propylbenzene	8.42		ug/L	10.00		84	70-130	0.4	25	
sec-Butylbenzene	8.93		ug/L	10.00		89	70-130	1	25	
Styrene	8.77		ug/L	10.00		88	70-130	0.9	25	
tert-Butylbenzene	8.49		ug/L	10.00		85	70-130	0.4	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52048 - 5030B										
Tertiary-amyl methyl ether	7.46		ug/L	10.00		75	70-130	0.1	25	
Tetrachloroethene	9.74		ug/L	10.00		97	70-130	0.3	25	
Tetrahydrofuran	8.34		ug/L	10.00		83	70-130	6	25	
Toluene	9.74		ug/L	10.00		97	70-130	1	25	
trans-1,2-Dichloroethene	10.1		ug/L	10.00		101	70-130	2	25	
trans-1,3-Dichloropropene	7.52		ug/L	10.00		75	70-130	0.9	25	
Trichloroethene	9.80		ug/L	10.00		98	70-130	0.1	25	
Trichlorofluoromethane	9.89		ug/L	10.00		99	70-130	3	25	
Trihalomethanes (Total)	39.5		mg/L							
Vinyl Acetate	12.2		ug/L	10.00		122	70-130	1	25	
Vinyl Chloride	9.26		ug/L	10.00		93	70-130	3	25	
Xylene O	9.72		ug/L	10.00		97	70-130	1	25	
Xylene P,M	19.3		ug/L	20.00		97	70-130	0.7	25	
Xylenes (Total)	29.0		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0268*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0262*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0278*		mg/L	*0.02500*		*111*	*70-130*			
Surrogate: Toluene-d8	*0.0258*		mg/L	*0.02500*		*103*	*70-130*			
Batch CJ52153 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - 5030B										
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	0.0004	0.0020	mg/L							J
Naphthalene	0.0002	0.0010	mg/L							J
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - [CALC]										
Trihalomethanes (Total)	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0295*		mg/L	*0.02500*		*118*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0183*		mg/L	*0.02500*		*73*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0293*		mg/L	*0.02500*		*117*	*70-130*			
Surrogate: Toluene-d8	*0.0192*		mg/L	*0.02500*		*77*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130			
1,1,1-Trichloroethane	11.1		ug/L	10.00		111	70-130			
1,1,2,2-Tetrachloroethane	9.60		ug/L	10.00		96	70-130			
1,1,2-Trichloroethane	10.0		ug/L	10.00		100	70-130			
1,1-Dichloroethane	10.2		ug/L	10.00		102	70-130			
1,1-Dichloroethene	10.8		ug/L	10.00		108	70-130			
1,1-Dichloropropene	10.9		ug/L	10.00		109	70-130			
1,2,3-Trichlorobenzene	9.32		ug/L	10.00		93	70-130			
1,2,3-Trichloropropane	9.33		ug/L	10.00		93	70-130			
1,2,4-Trichlorobenzene	8.65		ug/L	10.00		86	70-130			
1,2,4-Trimethylbenzene	8.95		ug/L	10.00		90	70-130			
1,2-Dibromo-3-Chloropropane	9.34		ug/L	10.00		93	70-130			
1,2-Dibromoethane	10.1		ug/L	10.00		101	70-130			
1,2-Dichlorobenzene	9.81		ug/L	10.00		98	70-130			
1,2-Dichloroethane	10.8		ug/L	10.00		108	70-130			
1,2-Dichloropropane	9.67		ug/L	10.00		97	70-130			
1,3,5-Trimethylbenzene	9.51		ug/L	10.00		95	70-130			
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,3-Dichloropropane	10.8		ug/L	10.00		108	70-130			
1,4-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,4-Dioxane - Screen	179		ug/L	200.0		89	0-332			
1-Chlorohexane	8.81		ug/L	10.00		88	70-130			
2,2-Dichloropropane	11.7		ug/L	10.00		117	70-130			
2-Butanone	51.3		ug/L	50.00		103	70-130			
2-Chlorotoluene	9.25		ug/L	10.00		92	70-130			
2-Hexanone	50.3		ug/L	50.00		101	70-130			
4-Chlorotoluene	9.59		ug/L	10.00		96	70-130			
4-Isopropyltoluene	9.57		ug/L	10.00		96	70-130			
4-Methyl-2-Pentanone	49.3		ug/L	50.00		99	70-130			
Acetone	51.6		ug/L	50.00		103	70-130			
Benzene	10.4		ug/L	10.00		104	70-130			
Bromobenzene	10.4		ug/L	10.00		104	70-130			
Bromochloromethane	11.0		ug/L	10.00		110	70-130			
Bromodichloromethane	10.4		ug/L	10.00		104	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - 5030B										
Bromoform	10.5		ug/L	10.00		105	70-130			
Bromomethane	6.28		ug/L	10.00		63	70-130			B-
Carbon Disulfide	9.94		ug/L	10.00		99	70-130			
Carbon Tetrachloride	11.4		ug/L	10.00		114	70-130			
Chlorobenzene	10.3		ug/L	10.00		103	70-130			
Chloroethane	9.31		ug/L	10.00		93	70-130			
Chloroform	10.6		ug/L	10.00		106	70-130			
Chloromethane	9.64		ug/L	10.00		96	70-130			
cis-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130			
cis-1,3-Dichloropropene	8.45		ug/L	10.00		84	70-130			
Dibromochloromethane	9.96		ug/L	10.00		100	70-130			
Dibromomethane	10.6		ug/L	10.00		106	70-130			
Dichlorodifluoromethane	10.7		ug/L	10.00		107	70-130			
Diethyl Ether	9.67		ug/L	10.00		97	70-130			
Di-isopropyl ether	8.19		ug/L	10.00		82	70-130			
Ethyl tertiary-butyl ether	8.47		ug/L	10.00		85	70-130			
Ethylbenzene	9.27		ug/L	10.00		93	70-130			
Hexachlorobutadiene	12.4		ug/L	10.00		124	70-130			
Hexachloroethane	10.3		ug/L	10.00		103	70-130			
Isopropylbenzene	8.64		ug/L	10.00		86	70-130			
Methyl tert-Butyl Ether	8.99		ug/L	10.00		90	70-130			
Methylene Chloride	11.2		ug/L	10.00		112	70-130			
Naphthalene	8.67		ug/L	10.00		87	70-130			
n-Butylbenzene	8.62		ug/L	10.00		86	70-130			
n-Propylbenzene	8.61		ug/L	10.00		86	70-130			
sec-Butylbenzene	9.25		ug/L	10.00		92	70-130			
Styrene	8.76		ug/L	10.00		88	70-130			
tert-Butylbenzene	8.73		ug/L	10.00		87	70-130			
Tertiary-amyl methyl ether	8.25		ug/L	10.00		82	70-130			
Tetrachloroethene	10.2		ug/L	10.00		102	70-130			
Tetrahydrofuran	8.74		ug/L	10.00		87	70-130			
Toluene	10.2		ug/L	10.00		102	70-130			
trans-1,2-Dichloroethene	10.3		ug/L	10.00		103	70-130			
trans-1,3-Dichloropropene	8.02		ug/L	10.00		80	70-130			
Trichloroethene	10.1		ug/L	10.00		101	70-130			
Trichlorofluoromethane	10.8		ug/L	10.00		108	70-130			
Trihalomethanes (Total)	41.4		mg/L							
Vinyl Acetate	13.7		ug/L	10.00		137	70-130			B+
Vinyl Chloride	10.4		ug/L	10.00		104	70-130			
Xylene O	9.84		ug/L	10.00		98	70-130			
Xylene P,M	19.7		ug/L	20.00		99	70-130			
Xylenes (Total)	29.6		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0281*		mg/L	*0.02500*		*112*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0261*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0285*		mg/L	*0.02500*		*114*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - 5030B										
Surrogate: Toluene-d8	*0.0251*		mg/L	*0.02500*		*100*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.1		ug/L	10.00		101	70-130	3	25	
1,1,1-Trichloroethane	10.9		ug/L	10.00		109	70-130	2	25	
1,1,2,2-Tetrachloroethane	9.47		ug/L	10.00		95	70-130	1	25	
1,1,2-Trichloroethane	9.92		ug/L	10.00		99	70-130	1	25	
1,1-Dichloroethane	9.90		ug/L	10.00		99	70-130	3	25	
1,1-Dichloroethene	11.0		ug/L	10.00		110	70-130	1	25	
1,1-Dichloropropene	10.4		ug/L	10.00		104	70-130	4	25	
1,2,3-Trichlorobenzene	8.87		ug/L	10.00		89	70-130	5	25	
1,2,3-Trichloropropane	9.14		ug/L	10.00		91	70-130	2	25	
1,2,4-Trichlorobenzene	8.32		ug/L	10.00		83	70-130	4	25	
1,2,4-Trimethylbenzene	8.62		ug/L	10.00		86	70-130	4	25	
1,2-Dibromo-3-Chloropropane	9.47		ug/L	10.00		95	70-130	1	25	
1,2-Dibromoethane	9.96		ug/L	10.00		100	70-130	1	25	
1,2-Dichlorobenzene	9.60		ug/L	10.00		96	70-130	2	25	
1,2-Dichloroethane	10.5		ug/L	10.00		105	70-130	3	25	
1,2-Dichloropropane	9.67		ug/L	10.00		97	70-130	0	25	
1,3,5-Trimethylbenzene	9.40		ug/L	10.00		94	70-130	1	25	
1,3-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	3	25	
1,3-Dichloropropane	10.6		ug/L	10.00		106	70-130	1	25	
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	2	25	
1,4-Dioxane - Screen	193		ug/L	200.0		97	0-332	8	200	
1-Chlorohexane	8.60		ug/L	10.00		86	70-130	2	25	
2,2-Dichloropropane	11.2		ug/L	10.00		112	70-130	4	25	
2-Butanone	51.2		ug/L	50.00		102	70-130	0.2	25	
2-Chlorotoluene	9.00		ug/L	10.00		90	70-130	3	25	
2-Hexanone	52.2		ug/L	50.00		104	70-130	4	25	
4-Chlorotoluene	9.44		ug/L	10.00		94	70-130	2	25	
4-Isopropyltoluene	9.20		ug/L	10.00		92	70-130	4	25	
4-Methyl-2-Pentanone	48.8		ug/L	50.00		98	70-130	1	25	
Acetone	55.5		ug/L	50.00		111	70-130	7	25	
Benzene	10.2		ug/L	10.00		102	70-130	2	25	
Bromobenzene	10.1		ug/L	10.00		101	70-130	3	25	
Bromochloromethane	11.0		ug/L	10.00		110	70-130	0	25	
Bromodichloromethane	10.3		ug/L	10.00		103	70-130	1	25	
Bromoform	10.2		ug/L	10.00		102	70-130	2	25	
Bromomethane	6.22		ug/L	10.00		62	70-130	1	25	B-
Carbon Disulfide	9.73		ug/L	10.00		97	70-130	2	25	
Carbon Tetrachloride	11.2		ug/L	10.00		112	70-130	2	25	
Chlorobenzene	9.89		ug/L	10.00		99	70-130	4	25	
Chloroethane	7.60		ug/L	10.00		76	70-130	20	25	
Chloroform	10.5		ug/L	10.00		105	70-130	1	25	
Chloromethane	9.03		ug/L	10.00		90	70-130	7	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52153 - 5030B										
cis-1,2-Dichloroethene	10.7		ug/L	10.00		107	70-130	2	25	
cis-1,3-Dichloropropene	8.39		ug/L	10.00		84	70-130	0.7	25	
Dibromochloromethane	9.59		ug/L	10.00		96	70-130	4	25	
Dibromomethane	10.3		ug/L	10.00		103	70-130	2	25	
Dichlorodifluoromethane	10.3		ug/L	10.00		103	70-130	4	25	
Diethyl Ether	9.70		ug/L	10.00		97	70-130	0.3	25	
Di-isopropyl ether	8.09		ug/L	10.00		81	70-130	1	25	
Ethyl tertiary-butyl ether	8.15		ug/L	10.00		82	70-130	4	25	
Ethylbenzene	9.00		ug/L	10.00		90	70-130	3	25	
Hexachlorobutadiene	11.5		ug/L	10.00		115	70-130	7	25	
Hexachloroethane	9.94		ug/L	10.00		99	70-130	4	25	
Isopropylbenzene	8.37		ug/L	10.00		84	70-130	3	25	
Methyl tert-Butyl Ether	8.87		ug/L	10.00		89	70-130	1	25	
Methylene Chloride	11.5		ug/L	10.00		115	70-130	2	25	
Naphthalene	8.09		ug/L	10.00		81	70-130	7	25	
n-Butylbenzene	8.02		ug/L	10.00		80	70-130	7	25	
n-Propylbenzene	8.37		ug/L	10.00		84	70-130	3	25	
sec-Butylbenzene	8.93		ug/L	10.00		89	70-130	4	25	
Styrene	8.52		ug/L	10.00		85	70-130	3	25	
tert-Butylbenzene	8.44		ug/L	10.00		84	70-130	3	25	
Tertiary-amyl methyl ether	8.12		ug/L	10.00		81	70-130	2	25	
Tetrachloroethene	9.66		ug/L	10.00		97	70-130	5	25	
Tetrahydrofuran	8.85		ug/L	10.00		88	70-130	1	25	
Toluene	9.88		ug/L	10.00		99	70-130	4	25	
trans-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130	0.8	25	
trans-1,3-Dichloropropene	7.98		ug/L	10.00		80	70-130	0.5	25	
Trichloroethene	9.84		ug/L	10.00		98	70-130	3	25	
Trichlorofluoromethane	10.6		ug/L	10.00		106	70-130	2	25	
Trihalomethanes (Total)	40.6		mg/L							
Vinyl Acetate	13.6		ug/L	10.00		136	70-130	0.6	25	B+
Vinyl Chloride	10.0		ug/L	10.00		100	70-130	3	25	
Xylene O	9.47		ug/L	10.00		95	70-130	4	25	
Xylene P,M	19.1		ug/L	20.00		96	70-130	3	25	
Xylenes (Total)	28.6		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0280*		mg/L	*0.02500*		*112*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0261*		mg/L	*0.02500*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0287*		mg/L	*0.02500*		*115*	*70-130*			
Surrogate: Toluene-d8	*0.0245*		mg/L	*0.02500*		*98*	*70-130*			
Batch CJ52253 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Trihalomethanes (Total)	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0288*		mg/L	*0.02500*		*115*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0186*		mg/L	*0.02500*		*74*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0290*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: Toluene-d8	*0.0190*		mg/L	*0.02500*		*76*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130			
1,1,1-Trichloroethane	10.8		ug/L	10.00		108	70-130			
1,1,2,2-Tetrachloroethane	9.64		ug/L	10.00		96	70-130			
1,1,2-Trichloroethane	9.95		ug/L	10.00		100	70-130			
1,1-Dichloroethane	10.0		ug/L	10.00		100	70-130			
1,1-Dichloroethene	11.0		ug/L	10.00		110	70-130			
1,1-Dichloropropene	10.8		ug/L	10.00		108	70-130			
1,2,3-Trichlorobenzene	9.47		ug/L	10.00		95	70-130			
1,2,3-Trichloropropane	9.32		ug/L	10.00		93	70-130			
1,2,4-Trichlorobenzene	8.86		ug/L	10.00		89	70-130			
1,2,4-Trimethylbenzene	8.99		ug/L	10.00		90	70-130			
1,2-Dibromo-3-Chloropropane	9.30		ug/L	10.00		93	70-130			
1,2-Dibromoethane	9.87		ug/L	10.00		99	70-130			
1,2-Dichlorobenzene	9.76		ug/L	10.00		98	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
1,2-Dichloroethane	10.6		ug/L	10.00		106	70-130			
1,2-Dichloropropane	9.63		ug/L	10.00		96	70-130			
1,3,5-Trimethylbenzene	9.50		ug/L	10.00		95	70-130			
1,3-Dichlorobenzene	10.3		ug/L	10.00		103	70-130			
1,3-Dichloropropane	10.9		ug/L	10.00		109	70-130			
1,4-Dichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,4-Dioxane - Screen	179		ug/L	200.0		90	0-332			
1-Chlorohexane	8.87		ug/L	10.00		89	70-130			
2,2-Dichloropropane	11.1		ug/L	10.00		111	70-130			
2-Butanone	48.9		ug/L	50.00		98	70-130			
2-Chlorotoluene	9.33		ug/L	10.00		93	70-130			
2-Hexanone	50.8		ug/L	50.00		102	70-130			
4-Chlorotoluene	9.41		ug/L	10.00		94	70-130			
4-Isopropyltoluene	9.47		ug/L	10.00		95	70-130			
4-Methyl-2-Pentanone	48.5		ug/L	50.00		97	70-130			
Acetone	50.9		ug/L	50.00		102	70-130			
Benzene	10.2		ug/L	10.00		102	70-130			
Bromobenzene	10.2		ug/L	10.00		102	70-130			
Bromochloromethane	10.9		ug/L	10.00		109	70-130			
Bromodichloromethane	10.3		ug/L	10.00		103	70-130			
Bromoform	10.3		ug/L	10.00		103	70-130			
Bromomethane	5.07		ug/L	10.00		51	70-130			B-
Carbon Disulfide	9.75		ug/L	10.00		98	70-130			
Carbon Tetrachloride	11.2		ug/L	10.00		112	70-130			
Chlorobenzene	10.2		ug/L	10.00		102	70-130			
Chloroethane	9.84		ug/L	10.00		98	70-130			
Chloroform	10.5		ug/L	10.00		105	70-130			
Chloromethane	8.94		ug/L	10.00		89	70-130			
cis-1,2-Dichloroethene	10.8		ug/L	10.00		108	70-130			
cis-1,3-Dichloropropene	8.36		ug/L	10.00		84	70-130			
Dibromochloromethane	9.61		ug/L	10.00		96	70-130			
Dibromomethane	10.1		ug/L	10.00		101	70-130			
Dichlorodifluoromethane	10.2		ug/L	10.00		102	70-130			
Diethyl Ether	9.91		ug/L	10.00		99	70-130			
Di-isopropyl ether	8.20		ug/L	10.00		82	70-130			
Ethyl tertiary-butyl ether	8.40		ug/L	10.00		84	70-130			
Ethylbenzene	9.37		ug/L	10.00		94	70-130			
Hexachlorobutadiene	12.5		ug/L	10.00		125	70-130			
Hexachloroethane	10.3		ug/L	10.00		103	70-130			
Isopropylbenzene	8.59		ug/L	10.00		86	70-130			
Methyl tert-Butyl Ether	8.96		ug/L	10.00		90	70-130			
Methylene Chloride	10.6		ug/L	10.00		106	70-130			
Naphthalene	9.26		ug/L	10.00		93	70-130			
n-Butylbenzene	8.73		ug/L	10.00		87	70-130			
n-Propylbenzene	8.58		ug/L	10.00		86	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
sec-Butylbenzene	9.22		ug/L	10.00		92	70-130			
Styrene	8.87		ug/L	10.00		89	70-130			
tert-Butylbenzene	8.55		ug/L	10.00		86	70-130			
Tertiary-amyl methyl ether	8.17		ug/L	10.00		82	70-130			
Tetrachloroethene	9.71		ug/L	10.00		97	70-130			
Tetrahydrofuran	8.85		ug/L	10.00		88	70-130			
Toluene	10.0		ug/L	10.00		100	70-130			
trans-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130			
trans-1,3-Dichloropropene	7.93		ug/L	10.00		79	70-130			
Trichloroethene	9.87		ug/L	10.00		99	70-130			
Trichlorofluoromethane	10.6		ug/L	10.00		106	70-130			
Trihalomethanes (Total)	40.8		mg/L							
Vinyl Acetate	13.6		ug/L	10.00		136	70-130			B+
Vinyl Chloride	9.88		ug/L	10.00		99	70-130			
Xylene O	9.85		ug/L	10.00		98	70-130			
Xylene P,M	19.6		ug/L	20.00		98	70-130			
Xylenes (Total)	29.4		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0275*		mg/L	*0.02500*		*110*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0262*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0284*		mg/L	*0.02500*		*114*	*70-130*			
Surrogate: Toluene-d8	*0.0251*		mg/L	*0.02500*		*101*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.0		ug/L	10.00		100	70-130	3	25	
1,1,1-Trichloroethane	10.8		ug/L	10.00		108	70-130	0.3	25	
1,1,2,2-Tetrachloroethane	9.69		ug/L	10.00		97	70-130	0.5	25	
1,1,2-Trichloroethane	9.82		ug/L	10.00		98	70-130	1	25	
1,1-Dichloroethane	9.74		ug/L	10.00		97	70-130	3	25	
1,1-Dichloroethene	10.9		ug/L	10.00		109	70-130	0.5	25	
1,1-Dichloropropene	10.6		ug/L	10.00		106	70-130	2	25	
1,2,3-Trichlorobenzene	9.24		ug/L	10.00		92	70-130	2	25	
1,2,3-Trichloropropane	9.26		ug/L	10.00		93	70-130	0.6	25	
1,2,4-Trichlorobenzene	8.53		ug/L	10.00		85	70-130	4	25	
1,2,4-Trimethylbenzene	8.88		ug/L	10.00		89	70-130	1	25	
1,2-Dibromo-3-Chloropropane	9.39		ug/L	10.00		94	70-130	1	25	
1,2-Dibromoethane	9.88		ug/L	10.00		99	70-130	0.1	25	
1,2-Dichlorobenzene	9.67		ug/L	10.00		97	70-130	0.9	25	
1,2-Dichloroethane	10.5		ug/L	10.00		105	70-130	0.9	25	
1,2-Dichloropropane	9.39		ug/L	10.00		94	70-130	3	25	
1,3,5-Trimethylbenzene	9.45		ug/L	10.00		94	70-130	0.5	25	
1,3-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	2	25	
1,3-Dichloropropane	10.6		ug/L	10.00		106	70-130	3	25	
1,4-Dichlorobenzene	10.1		ug/L	10.00		101	70-130	4	25	
1,4-Dioxane - Screen	187		ug/L	200.0		94	0-332	4	200	
1-Chlorohexane	8.69		ug/L	10.00		87	70-130	2	25	
2,2-Dichloropropane	11.4		ug/L	10.00		114	70-130	3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
2-Butanone	49.4		ug/L	50.00		99	70-130	1	25	
2-Chlorotoluene	9.21		ug/L	10.00		92	70-130	1	25	
2-Hexanone	49.6		ug/L	50.00		99	70-130	2	25	
4-Chlorotoluene	9.46		ug/L	10.00		95	70-130	0.5	25	
4-Isopropyltoluene	9.39		ug/L	10.00		94	70-130	0.8	25	
4-Methyl-2-Pentanone	47.8		ug/L	50.00		96	70-130	2	25	
Acetone	49.8		ug/L	50.00		100	70-130	2	25	
Benzene	10.2		ug/L	10.00		102	70-130	0.1	25	
Bromobenzene	10.3		ug/L	10.00		103	70-130	1	25	
Bromochloromethane	10.8		ug/L	10.00		108	70-130	0.3	25	
Bromodichloromethane	10.2		ug/L	10.00		102	70-130	1	25	
Bromoform	10.2		ug/L	10.00		102	70-130	1	25	
Bromomethane	5.11		ug/L	10.00		51	70-130	0.8	25	B-
Carbon Disulfide	9.68		ug/L	10.00		97	70-130	0.7	25	
Carbon Tetrachloride	11.1		ug/L	10.00		111	70-130	2	25	
Chlorobenzene	9.97		ug/L	10.00		100	70-130	2	25	
Chloroethane	8.99		ug/L	10.00		90	70-130	9	25	
Chloroform	10.3		ug/L	10.00		103	70-130	2	25	
Chloromethane	8.75		ug/L	10.00		88	70-130	2	25	
cis-1,2-Dichloroethene	10.8		ug/L	10.00		108	70-130	0	25	
cis-1,3-Dichloropropene	8.30		ug/L	10.00		83	70-130	0.7	25	
Dibromochloromethane	9.53		ug/L	10.00		95	70-130	0.8	25	
Dibromomethane	10.2		ug/L	10.00		102	70-130	0.2	25	
Dichlorodifluoromethane	9.96		ug/L	10.00		100	70-130	3	25	
Diethyl Ether	9.86		ug/L	10.00		99	70-130	0.5	25	
Di-isopropyl ether	8.17		ug/L	10.00		82	70-130	0.4	25	
Ethyl tertiary-butyl ether	8.36		ug/L	10.00		84	70-130	0.5	25	
Ethylbenzene	9.14		ug/L	10.00		91	70-130	2	25	
Hexachlorobutadiene	11.7		ug/L	10.00		117	70-130	6	25	
Hexachloroethane	10.0		ug/L	10.00		100	70-130	3	25	
Isopropylbenzene	8.59		ug/L	10.00		86	70-130	0	25	
Methyl tert-Butyl Ether	9.06		ug/L	10.00		91	70-130	1	25	
Methylene Chloride	10.7		ug/L	10.00		107	70-130	1	25	
Naphthalene	8.70		ug/L	10.00		87	70-130	6	25	
n-Butylbenzene	8.51		ug/L	10.00		85	70-130	3	25	
n-Propylbenzene	8.57		ug/L	10.00		86	70-130	0.1	25	
sec-Butylbenzene	9.13		ug/L	10.00		91	70-130	1	25	
Styrene	8.63		ug/L	10.00		86	70-130	3	25	
tert-Butylbenzene	8.58		ug/L	10.00		86	70-130	0.4	25	
Tertiary-amyl methyl ether	8.28		ug/L	10.00		83	70-130	1	25	
Tetrachloroethene	9.59		ug/L	10.00		96	70-130	1	25	
Tetrahydrofuran	8.38		ug/L	10.00		84	70-130	5	25	
Toluene	9.86		ug/L	10.00		99	70-130	1	25	
trans-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130	0.2	25	
trans-1,3-Dichloropropene	7.84		ug/L	10.00		78	70-130	1	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52253 - 5030B										
Trichloroethene	9.73		ug/L	10.00		97	70-130	1	25	
Trichlorofluoromethane	10.4		ug/L	10.00		104	70-130	2	25	
Trihalomethanes (Total)	40.2		mg/L							
Vinyl Acetate	13.4		ug/L	10.00		134	70-130	1	25	B+
Vinyl Chloride	9.62		ug/L	10.00		96	70-130	3	25	
Xylene O	9.47		ug/L	10.00		95	70-130	4	25	
Xylene P,M	19.2		ug/L	20.00		96	70-130	2	25	
Xylenes (Total)	28.6		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0276*		mg/L	*0.02500*		*110*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0255*		mg/L	*0.02500*		*102*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0286*		mg/L	*0.02500*		*114*	*70-130*			
Surrogate: Toluene-d8	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
Batch CJ52344 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	0.0059	0.0100	mg/L							J
Benzene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	0.0004	0.0020	mg/L							J
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Trihalomethanes (Total)	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
Surrogate: 1,2-Dichloroethane-d4	*0.0314*		mg/L	*0.02500*		*125*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0182*		mg/L	*0.02500*		*73*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0301*		mg/L	*0.02500*		*120*	*70-130*			
Surrogate: Toluene-d8	*0.0186*		mg/L	*0.02500*		*74*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130			
1,1,1-Trichloroethane	11.4		ug/L	10.00		114	70-130			
1,1,2,2-Tetrachloroethane	9.39		ug/L	10.00		94	70-130			
1,1,2-Trichloroethane	10.1		ug/L	10.00		101	70-130			
1,1-Dichloroethane	10.3		ug/L	10.00		103	70-130			
1,1-Dichloroethene	10.7		ug/L	10.00		107	70-130			
1,1-Dichloropropene	10.8		ug/L	10.00		108	70-130			
1,2,3-Trichlorobenzene	9.11		ug/L	10.00		91	70-130			
1,2,3-Trichloropropane	9.36		ug/L	10.00		94	70-130			
1,2,4-Trichlorobenzene	8.36		ug/L	10.00		84	70-130			
1,2,4-Trimethylbenzene	8.57		ug/L	10.00		86	70-130			
1,2-Dibromo-3-Chloropropane	9.93		ug/L	10.00		99	70-130			
1,2-Dibromoethane	9.85		ug/L	10.00		98	70-130			
1,2-Dichlorobenzene	9.56		ug/L	10.00		96	70-130			
1,2-Dichloroethane	11.0		ug/L	10.00		110	70-130			
1,2-Dichloropropane	9.62		ug/L	10.00		96	70-130			
1,3,5-Trimethylbenzene	9.20		ug/L	10.00		92	70-130			
1,3-Dichlorobenzene	10.0		ug/L	10.00		100	70-130			
1,3-Dichloropropane	10.8		ug/L	10.00		108	70-130			
1,4-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,4-Dioxane - Screen	193		ug/L	200.0		97	0-332			
1-Chlorohexane	8.53		ug/L	10.00		85	70-130			
2,2-Dichloropropane	12.2		ug/L	10.00		122	70-130			
2-Butanone	53.1		ug/L	50.00		106	70-130			
2-Chlorotoluene	8.96		ug/L	10.00		90	70-130			
2-Hexanone	54.8		ug/L	50.00		110	70-130			
4-Chlorotoluene	9.06		ug/L	10.00		91	70-130			
4-Isopropyltoluene	9.42		ug/L	10.00		94	70-130			
4-Methyl-2-Pentanone	52.1		ug/L	50.00		104	70-130			
Acetone	55.2		ug/L	50.00		110	70-130			
Benzene	10.3		ug/L	10.00		103	70-130			
Bromobenzene	9.80		ug/L	10.00		98	70-130			
Bromochloromethane	11.0		ug/L	10.00		110	70-130			
Bromodichloromethane	10.9		ug/L	10.00		109	70-130			
Bromoform	10.7		ug/L	10.00		107	70-130			
Bromomethane	6.33		ug/L	10.00		63	70-130			B-
Carbon Disulfide	9.98		ug/L	10.00		100	70-130			
Carbon Tetrachloride	11.8		ug/L	10.00		118	70-130			
Chlorobenzene	10.1		ug/L	10.00		101	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
Chloroethane	7.54		ug/L	10.00		75	70-130			
Chloroform	10.9		ug/L	10.00		109	70-130			
Chloromethane	9.34		ug/L	10.00		93	70-130			
cis-1,2-Dichloroethene	10.8		ug/L	10.00		108	70-130			
cis-1,3-Dichloropropene	8.50		ug/L	10.00		85	70-130			
Dibromochloromethane	9.98		ug/L	10.00		100	70-130			
Dibromomethane	10.5		ug/L	10.00		105	70-130			
Dichlorodifluoromethane	11.1		ug/L	10.00		111	70-130			
Diethyl Ether	9.85		ug/L	10.00		98	70-130			
Di-isopropyl ether	7.93		ug/L	10.00		79	70-130			
Ethyl tertiary-butyl ether	8.21		ug/L	10.00		82	70-130			
Ethylbenzene	9.05		ug/L	10.00		90	70-130			
Hexachlorobutadiene	12.3		ug/L	10.00		123	70-130			
Hexachloroethane	10.1		ug/L	10.00		101	70-130			
Isopropylbenzene	8.13		ug/L	10.00		81	70-130			
Methyl tert-Butyl Ether	8.96		ug/L	10.00		90	70-130			
Methylene Chloride	11.0		ug/L	10.00		110	70-130			
Naphthalene	8.19		ug/L	10.00		82	70-130			
n-Butylbenzene	8.42		ug/L	10.00		84	70-130			
n-Propylbenzene	8.14		ug/L	10.00		81	70-130			
sec-Butylbenzene	8.96		ug/L	10.00		90	70-130			
Styrene	8.53		ug/L	10.00		85	70-130			
tert-Butylbenzene	8.16		ug/L	10.00		82	70-130			
Tertiary-amyl methyl ether	8.08		ug/L	10.00		81	70-130			
Tetrachloroethene	10.0		ug/L	10.00		100	70-130			
Tetrahydrofuran	8.48		ug/L	10.00		85	70-130			
Toluene	9.92		ug/L	10.00		99	70-130			
trans-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130			
trans-1,3-Dichloropropene	8.16		ug/L	10.00		82	70-130			
Trichloroethene	10.1		ug/L	10.00		101	70-130			
Trichlorofluoromethane	11.1		ug/L	10.00		111	70-130			
Trihalomethanes (Total)	42.4		mg/L							
Vinyl Acetate	13.4		ug/L	10.00		134	70-130			B+
Vinyl Chloride	10.6		ug/L	10.00		106	70-130			
Xylene O	9.60		ug/L	10.00		96	70-130			
Xylene P,M	19.1		ug/L	20.00		96	70-130			
Xylenes (Total)	28.7		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0295*		mg/L	*0.02500*		*118*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0267*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0296*		mg/L	*0.02500*		*118*	*70-130*			
Surrogate: Toluene-d8	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.00		104	70-130	0.6	25	
1,1,1-Trichloroethane	11.2		ug/L	10.00		112	70-130	2	25	
1,1,2,2-Tetrachloroethane	9.42		ug/L	10.00		94	70-130	0.3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
1,1,2-Trichloroethane	9.99		ug/L	10.00		100	70-130	1	25	
1,1-Dichloroethane	10.1		ug/L	10.00		101	70-130	1	25	
1,1-Dichloroethene	10.6		ug/L	10.00		106	70-130	1	25	
1,1-Dichloropropene	10.7		ug/L	10.00		107	70-130	0.8	25	
1,2,3-Trichlorobenzene	8.73		ug/L	10.00		87	70-130	4	25	
1,2,3-Trichloropropane	9.02		ug/L	10.00		90	70-130	4	25	
1,2,4-Trichlorobenzene	8.16		ug/L	10.00		82	70-130	2	25	
1,2,4-Trimethylbenzene	8.50		ug/L	10.00		85	70-130	0.8	25	
1,2-Dibromo-3-Chloropropane	9.25		ug/L	10.00		92	70-130	7	25	
1,2-Dibromoethane	9.62		ug/L	10.00		96	70-130	2	25	
1,2-Dichlorobenzene	9.40		ug/L	10.00		94	70-130	2	25	
1,2-Dichloroethane	10.8		ug/L	10.00		108	70-130	2	25	
1,2-Dichloropropane	9.45		ug/L	10.00		94	70-130	2	25	
1,3,5-Trimethylbenzene	9.03		ug/L	10.00		90	70-130	2	25	
1,3-Dichlorobenzene	10.1		ug/L	10.00		101	70-130	0.5	25	
1,3-Dichloropropane	10.4		ug/L	10.00		104	70-130	3	25	
1,4-Dichlorobenzene	9.99		ug/L	10.00		100	70-130	5	25	
1,4-Dioxane - Screen	174		ug/L	200.0		87	0-332	11	200	
1-Chlorohexane	8.62		ug/L	10.00		86	70-130	1	25	
2,2-Dichloropropane	11.8		ug/L	10.00		118	70-130	3	25	
2-Butanone	51.9		ug/L	50.00		104	70-130	2	25	
2-Chlorotoluene	8.85		ug/L	10.00		88	70-130	1	25	
2-Hexanone	50.4		ug/L	50.00		101	70-130	8	25	
4-Chlorotoluene	9.13		ug/L	10.00		91	70-130	0.8	25	
4-Isopropyltoluene	9.20		ug/L	10.00		92	70-130	2	25	
4-Methyl-2-Pentanone	47.0		ug/L	50.00		94	70-130	10	25	
Acetone	59.0		ug/L	50.00		118	70-130	7	25	
Benzene	10.2		ug/L	10.00		102	70-130	2	25	
Bromobenzene	9.88		ug/L	10.00		99	70-130	0.8	25	
Bromochloromethane	10.9		ug/L	10.00		109	70-130	1	25	
Bromodichloromethane	10.5		ug/L	10.00		105	70-130	3	25	
Bromoform	10.4		ug/L	10.00		104	70-130	3	25	
Bromomethane	6.24		ug/L	10.00		62	70-130	1	25	B-
Carbon Disulfide	9.72		ug/L	10.00		97	70-130	3	25	
Carbon Tetrachloride	11.6		ug/L	10.00		116	70-130	2	25	
Chlorobenzene	9.91		ug/L	10.00		99	70-130	2	25	
Chloroethane	9.72		ug/L	10.00		97	70-130	25	25	
Chloroform	10.6		ug/L	10.00		106	70-130	2	25	
Chloromethane	9.06		ug/L	10.00		91	70-130	3	25	
cis-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130	1	25	
cis-1,3-Dichloropropene	8.24		ug/L	10.00		82	70-130	3	25	
Dibromochloromethane	9.66		ug/L	10.00		97	70-130	3	25	
Dibromomethane	10.4		ug/L	10.00		104	70-130	0.1	25	
Dichlorodifluoromethane	10.6		ug/L	10.00		106	70-130	5	25	
Diethyl Ether	9.40		ug/L	10.00		94	70-130	5	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52344 - 5030B										
Di-isopropyl ether	7.94		ug/L	10.00		79	70-130	0.1	25	
Ethyl tertiary-butyl ether	8.22		ug/L	10.00		82	70-130	0.1	25	
Ethylbenzene	8.98		ug/L	10.00		90	70-130	0.8	25	
Hexachlorobutadiene	11.5		ug/L	10.00		115	70-130	7	25	
Hexachloroethane	10.1		ug/L	10.00		101	70-130	0	25	
Isopropylbenzene	8.08		ug/L	10.00		81	70-130	0.6	25	
Methyl tert-Butyl Ether	8.76		ug/L	10.00		88	70-130	2	25	
Methylene Chloride	11.0		ug/L	10.00		110	70-130	0.5	25	
Naphthalene	7.60		ug/L	10.00		76	70-130	7	25	
n-Butylbenzene	8.19		ug/L	10.00		82	70-130	3	25	
n-Propylbenzene	8.13		ug/L	10.00		81	70-130	0.1	25	
sec-Butylbenzene	8.75		ug/L	10.00		88	70-130	2	25	
Styrene	8.44		ug/L	10.00		84	70-130	1	25	
tert-Butylbenzene	8.14		ug/L	10.00		81	70-130	0.2	25	
Tertiary-amyl methyl ether	8.15		ug/L	10.00		82	70-130	0.9	25	
Tetrachloroethene	9.87		ug/L	10.00		99	70-130	2	25	
Tetrahydrofuran	8.65		ug/L	10.00		86	70-130	2	25	
Toluene	9.85		ug/L	10.00		98	70-130	0.7	25	
trans-1,2-Dichloroethene	10.1		ug/L	10.00		101	70-130	1	25	
trans-1,3-Dichloropropene	8.02		ug/L	10.00		80	70-130	2	25	
Trichloroethene	9.80		ug/L	10.00		98	70-130	3	25	
Trichlorofluoromethane	10.9		ug/L	10.00		109	70-130	2	25	
Trihalomethanes (Total)	41.2		mg/L							
Vinyl Acetate	12.7		ug/L	10.00		127	70-130	5	25	
Vinyl Chloride	10.5		ug/L	10.00		105	70-130	0.4	25	
Xylene O	9.41		ug/L	10.00		94	70-130	2	25	
Xylene P,M	19.0		ug/L	20.00		95	70-130	0.9	25	
Xylenes (Total)	28.4		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0289*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0260*		mg/L	*0.02500*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0290*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: Toluene-d8	*0.0243*		mg/L	*0.02500*		*97*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1510464

Notes and Definitions

U	Analyte included in the analysis, but not detected
J	Reported between MDL and MRL
E	Reported above the quantitation limit; Estimated value (E).
D	Diluted.
CD-	Continuing Calibration %Diff/Drift is below control limit (CD-).
B+	Blank Spike recovery is above upper control limit (B+).
B-	Blank Spike recovery is below lower control limit (B-).
B	Present in Method Blank (B).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510464

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: Client

ESS Project ID: 15100464
Date Project Due: 10/23/2015
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	No
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: 3.4		16. Are ESS labels on correct containers?	Yes | No
Iced With: Ice		17. Were samples received intact?	Yes | No
6. Was COC included with samples?	Yes	ESS Sample IDs:	
7. Was COC signed and dated by client?	Yes	Sub Lab:	
8. Does the COC match the sample	Yes	Analysis:	
9. Is COC complete and correct?	Yes	TAT:	

18. Was there need to call project manager to discuss status? If yes, please explain.

COC = VHB-8R 10/15/15 1210 ; Label = 10/15/15 1210 10/16/15

COC = VHB-10 10/15/15 1240 ; Label = 10/15/15 1240

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	40 ml - VOA	3	HCL
2	Yes	40 ml - VOA	3	HCL
3	Yes	40 ml - VOA	3	HCL
4	Yes	40 ml - VOA	3	HCL
5	Yes	40 ml - VOA	2	HCL
6	Yes	40 ml - VOA	3	HCL
7	Yes	40 ml - VOA	3	HCL
8	Yes	40 ml - VOA	3	HCL
9	Yes	40 ml - VOA	3	HCL
10	Yes	40 ml - VOA	3	HCL
11	Yes	40 ml - VOA	3	HCL
12	Yes	40 ml - VOA	3	HCL
13	Yes	40 ml - VOA	3	HCL
14	Yes	40 ml - VOA	1	HCL

Completed By: _____ Date/Time: 10/16/15 1605

Reviewed By: _____ Date/Time: 10/16/15 1729

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston RI 02910-2211
Tel. (401)461-7181 Fax (401)461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1570464

Turn Time ✓ Standard Other_____

Regulatory State: MA (RI) CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - GB

Electonic Deliverables (*Excel) Access (PDF)

Co. Name	Project #	Project Name
GZA GeoEnvironmental Inc.	33559.00	642 Allens Avenue

Contact Person	Proj. Location
Meg Kilpatrick	642 Allens Avenue Providence RI

Address	City , State	Zip	PO #
530 Broadway	Providence	RI	

Tel.	email:

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: VOCs
1	10/15/15	15:30	G	GW	RCA-1	2	3	VOA	40 mL	X
2	10/15/15	9:40	G	GW	RCA-3	2	3	VOA	40 mL	X
3	10/15/15	12:30	G	GW	RCA-11	2	3	VOA	40 mL	X
4	10/15/15	15:45	G	GW	RCA-12R	2	3	VOA	40 mL	X
5	10/16/15	9:50	G	GW	RCA-22	2	~~3~~ 2	VOA	40 mL	X
6	10/16/15	9:00	G	GW	RCA-38	2	3	VOA	40 mL	X
7	10/15/15	10:40	G	GW	VHB-3	2	3	VOA	40 mL	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes _____No

Seals Intact _____ Yes _____No NA: ✓

Cooler Temperature: ~~13.6~~ 3.4 Ice JL 10/16/15 ~~JL 10/16/15~~

Internal Use Only

[ ] Pickup

[ ] Technician (DC)

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : Sophia Narkiewicz & Sara Hewpt

Comments: BROKE 1 VOA FROM RCA-22 SAMPLE WHILE PACKING UP. PLEASE RUN ANALYSIS IF POSSIBLE. NORD RATES APPLY

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
10/16/15 15:20	10/16/15 1520		
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges sampels were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

Report Method Blank & Laboratory Control Sample Results

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston RI 02910-2211
Tel. (401)461-7181 Fax (401)461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1570464

Turn Time x Standard Other_____

Regulatory State: MA (RI) CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - GB

Electonic Deliverables *Excel Access PDF

Co. Name: GZA GeoEnvironmental Inc.	Project #: 33554.110	Project Name: GAZ Allens Avenue	
Contact Person: Meg Kilpatrick	Proj. Location: GAZ Allens Avenue Providence RI		
Address: 530 Broadway	City, State: Providence RI	Zip: 02909	PO #:
Tel.	email:		

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: VOC								
8	10/15/15	14:25	G	GW	VHB-1	2	3	VOA	40mL	X								
9	10/15/15	10:25	G	GW	VHB-6	2	3	VOA	40mL	X								
10	10/15/15	8:00	G	GW	BD 10 15 15	2	3	VOA	40mL	X								
11	10/15/15	10:00	G	GW	VHB-7	2	3	VOA	40mL	X								
14	10/15/15	8:00			Triplank	2	3	VOA	40mL	X								
12	10/15/15	12:10	G	GW	VHB-8R	2	3	VOA	40mL	X								
13	10/15/15	12:10	G	GW	VHB-10	2	3	VOA	40mL	X								

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: ~~13.6~~ 3.4 ICE ~~IC~~ 10/16/15 10/16/15

Internal Use Only

[ ] Pickup

[ ] Technician PO

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: Sophia Narkiewicz & Sara Haupt

Comments: NGrid rates apply

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
10/16/15 15:20	10/16/15 1520		
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges sampels were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

Report Method Blank & Laboratory Control Sample Results

CERTIFICATE OF ANALYSIS

Meg Kilpatrick
GZA GeoEnvironmental, Inc.
530 Broadway
Providence, RI 02909

RE: 642 Allens Ave (03.0033554.00)
ESS Laboratory Work Order Number: 1510503

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 4:59 pm, Oct 26, 2015

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

SAMPLE RECEIPT

The following samples were received on October 19, 2015 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1510503-01	RCA-36	Ground Water	8260B
1510503-02	VHB-13	Ground Water	8260B
1510503-03	Trip Blank	Aqueous	8260B

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

PROJECT NARRATIVE

8260B Volatile Organic Compounds

CJ52347-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (154% @ 70-130%)
CJ52347-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Methylene Chloride (67% @ 70-130%)
CJ52347-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Vinyl Acetate (159% @ 70-130%)
CYJ0323-CCV1	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	1,4-Dioxane - Screen (38% @ 30%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 10/19/15 12:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510503
ESS Laboratory Sample ID: 1510503-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,2,4-Trimethylbenzene	**0.0017** (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,3,5-Trimethylbenzene	**J 0.0001** (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Acetone	ND (0.0100)	0.0027	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Benzene	**0.0229** (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 10/19/15 12:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510503
ESS Laboratory Sample ID: 1510503-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Bromoform	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Chloroform	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Ethylbenzene	**0.0028** (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Isopropylbenzene	**J 0.0004** (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Naphthalene	**0.0015** (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
n-Propylbenzene	**J 0.0002** (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Styrene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 10/19/15 12:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510503
ESS Laboratory Sample ID: 1510503-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Toluene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Xylene O	**J 0.0009** (0.0010)	0.0001	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Xylene P,M	**J 0.0003** (0.0020)	0.0002	8260B		1	10/24/15 19:16	CYJ0323	CJ52347
Xylenes (Total)	ND (0.0020)		8260B		1	10/24/15 19:16		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/24/15 19:16		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*82 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*86 %*		*70-130*
Surrogate: Dibromofluoromethane	*94 %*		*70-130*
Surrogate: Toluene-d8	*99 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-13
Date Sampled: 10/19/15 13:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510503
ESS Laboratory Sample ID: 1510503-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Acetone	ND (0.0100)	0.0027	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Benzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-13
Date Sampled: 10/19/15 13:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510503
ESS Laboratory Sample ID: 1510503-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Bromoform	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Chloroform	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Naphthalene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Styrene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-13
Date Sampled: 10/19/15 13:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510503
ESS Laboratory Sample ID: 1510503-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Toluene	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Xylene O	ND (0.0010)	0.0001	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/24/15 19:49	CYJ0323	CJ52347
Xylenes (Total)	ND (0.0020)		8260B		1	10/24/15 19:49		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/24/15 19:49		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*82 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*83 %*		*70-130*
Surrogate: Dibromofluoromethane	*93 %*		*70-130*
Surrogate: Toluene-d8	*98 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 10/19/15 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510503
ESS Laboratory Sample ID: 1510503-03
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
2-Butanone	ND (0.0100)	0.0034	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
2-Hexanone	ND (0.0100)	0.0015	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Acetone	ND (0.0100)	0.0027	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Benzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Bromobenzene	ND (0.0020)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 10/19/15 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510503
ESS Laboratory Sample ID: 1510503-03
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Bromoform	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Bromomethane	ND (0.0020)	0.0004	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Chloroethane	ND (0.0020)	0.0004	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Chloroform	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Chloromethane	ND (0.0020)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Dibromomethane	ND (0.0010)	0.0003	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Methylene Chloride	**J 0.0003** (0.0020)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Naphthalene	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Styrene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 10/19/15 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1510503
ESS Laboratory Sample ID: 1510503-03
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Toluene	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Trichloroethene	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Xylene O	ND (0.0010)	0.0001	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Xylene P,M	ND (0.0020)	0.0002	8260B		1	10/24/15 18:44	CYJ0323	CJ52347
Xylenes (Total)	ND (0.0020)		8260B		1	10/24/15 18:44		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			10/24/15 18:44		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*79 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*84 %*		*70-130*
Surrogate: Dibromofluoromethane	*91 %*		*70-130*
Surrogate: Toluene-d8	*101 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52347 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52347 - 5030B										
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Trihalomethanes (Total)	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0199*		mg/L	*0.02500*		*80*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0211*		mg/L	*0.02500*		*85*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0233*		mg/L	*0.02500*		*93*	*70-130*			
Surrogate: Toluene-d8	*0.0253*		mg/L	*0.02500*		*101*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.60		ug/L	10.00		96	70-130			
1,1,1-Trichloroethane	8.95		ug/L	10.00		90	70-130			
1,1,2,2-Tetrachloroethane	9.05		ug/L	10.00		90	70-130			
1,1,2-Trichloroethane	9.68		ug/L	10.00		97	70-130			
1,1-Dichloroethane	8.78		ug/L	10.00		88	70-130			
1,1-Dichloroethene	7.64		ug/L	10.00		76	70-130			
1,1-Dichloropropene	8.46		ug/L	10.00		85	70-130			
1,2,3-Trichlorobenzene	10.4		ug/L	10.00		104	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52347 - 5030B										
1,2,3-Trichloropropane	7.96		ug/L	10.00		80	70-130			
1,2,4-Trichlorobenzene	9.93		ug/L	10.00		99	70-130			
1,2,4-Trimethylbenzene	8.68		ug/L	10.00		87	70-130			
1,2-Dibromo-3-Chloropropane	8.84		ug/L	10.00		88	70-130			
1,2-Dibromoethane	9.59		ug/L	10.00		96	70-130			
1,2-Dichlorobenzene	9.94		ug/L	10.00		99	70-130			
1,2-Dichloroethane	8.80		ug/L	10.00		88	70-130			
1,2-Dichloropropane	8.88		ug/L	10.00		89	70-130			
1,3,5-Trimethylbenzene	8.91		ug/L	10.00		89	70-130			
1,3-Dichlorobenzene	9.89		ug/L	10.00		99	70-130			
1,3-Dichloropropane	9.15		ug/L	10.00		92	70-130			
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,4-Dioxane - Screen	220		ug/L	200.0		110	0-332			
1-Chlorohexane	8.02		ug/L	10.00		80	70-130			
2,2-Dichloropropane	9.16		ug/L	10.00		92	70-130			
2-Butanone	44.3		ug/L	50.00		89	70-130			
2-Chlorotoluene	8.65		ug/L	10.00		86	70-130			
2-Hexanone	41.0		ug/L	50.00		82	70-130			
4-Chlorotoluene	8.71		ug/L	10.00		87	70-130			
4-Isopropyltoluene	8.81		ug/L	10.00		88	70-130			
4-Methyl-2-Pentanone	44.2		ug/L	50.00		88	70-130			
Acetone	40.6		ug/L	50.00		81	70-130			
Benzene	9.09		ug/L	10.00		91	70-130			
Bromobenzene	9.67		ug/L	10.00		97	70-130			
Bromochloromethane	10.3		ug/L	10.00		103	70-130			
Bromodichloromethane	9.75		ug/L	10.00		98	70-130			
Bromoform	11.2		ug/L	10.00		112	70-130			
Bromomethane	11.2		ug/L	10.00		112	70-130			
Carbon Disulfide	9.83		ug/L	10.00		98	70-130			
Carbon Tetrachloride	9.46		ug/L	10.00		95	70-130			
Chlorobenzene	9.61		ug/L	10.00		96	70-130			
Chloroethane	8.38		ug/L	10.00		84	70-130			
Chloroform	9.11		ug/L	10.00		91	70-130			
Chloromethane	8.87		ug/L	10.00		89	70-130			
cis-1,2-Dichloroethene	9.77		ug/L	10.00		98	70-130			
cis-1,3-Dichloropropene	8.59		ug/L	10.00		86	70-130			
Dibromochloromethane	9.86		ug/L	10.00		99	70-130			
Dibromomethane	9.75		ug/L	10.00		98	70-130			
Dichlorodifluoromethane	7.87		ug/L	10.00		79	70-130			
Diethyl Ether	7.57		ug/L	10.00		76	70-130			
Di-isopropyl ether	8.27		ug/L	10.00		83	70-130			
Ethyl tertiary-butyl ether	8.08		ug/L	10.00		81	70-130			
Ethylbenzene	8.59		ug/L	10.00		86	70-130			
Hexachlorobutadiene	10.2		ug/L	10.00		102	70-130			
Hexachloroethane	11.4		ug/L	10.00		114	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52347 - 5030B										
Isopropylbenzene	8.26		ug/L	10.00		83	70-130			
Methyl tert-Butyl Ether	7.80		ug/L	10.00		78	70-130			
Methylene Chloride	6.73		ug/L	10.00		67	70-130			B-
Naphthalene	8.36		ug/L	10.00		84	70-130			
n-Butylbenzene	8.49		ug/L	10.00		85	70-130			
n-Propylbenzene	8.20		ug/L	10.00		82	70-130			
sec-Butylbenzene	8.87		ug/L	10.00		89	70-130			
Styrene	8.67		ug/L	10.00		87	70-130			
tert-Butylbenzene	8.64		ug/L	10.00		86	70-130			
Tertiary-amyl methyl ether	7.98		ug/L	10.00		80	70-130			
Tetrachloroethene	7.63		ug/L	10.00		76	70-130			
Tetrahydrofuran	10.2		ug/L	10.00		102	70-130			
Toluene	9.64		ug/L	10.00		96	70-130			
trans-1,2-Dichloroethene	9.97		ug/L	10.00		100	70-130			
trans-1,3-Dichloropropene	7.70		ug/L	10.00		77	70-130			
Trichloroethene	9.00		ug/L	10.00		90	70-130			
Trichlorofluoromethane	8.15		ug/L	10.00		82	70-130			
Trihalomethanes (Total)	39.9		mg/L							
Vinyl Acetate	15.4		ug/L	10.00		154	70-130			B+
Vinyl Chloride	8.42		ug/L	10.00		84	70-130			
Xylene O	9.39		ug/L	10.00		94	70-130			
Xylene P,M	18.8		ug/L	20.00		94	70-130			
Xylenes (Total)	28.2		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0212*		mg/L	*0.02500*		*85*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0240*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0252*		mg/L	*0.02500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.43		ug/L	10.00		94	70-130	2	25	
1,1,1-Trichloroethane	8.52		ug/L	10.00		85	70-130	5	25	
1,1,2,2-Tetrachloroethane	9.09		ug/L	10.00		91	70-130	0.4	25	
1,1,2-Trichloroethane	9.46		ug/L	10.00		95	70-130	2	25	
1,1-Dichloroethane	8.58		ug/L	10.00		86	70-130	2	25	
1,1-Dichloroethene	7.51		ug/L	10.00		75	70-130	2	25	
1,1-Dichloropropene	8.52		ug/L	10.00		85	70-130	0.7	25	
1,2,3-Trichlorobenzene	9.72		ug/L	10.00		97	70-130	6	25	
1,2,3-Trichloropropane	8.55		ug/L	10.00		86	70-130	7	25	
1,2,4-Trichlorobenzene	9.47		ug/L	10.00		95	70-130	5	25	
1,2,4-Trimethylbenzene	8.50		ug/L	10.00		85	70-130	2	25	
1,2-Dibromo-3-Chloropropane	9.05		ug/L	10.00		90	70-130	2	25	
1,2-Dibromoethane	9.74		ug/L	10.00		97	70-130	2	25	
1,2-Dichlorobenzene	9.73		ug/L	10.00		97	70-130	2	25	
1,2-Dichloroethane	8.08		ug/L	10.00		81	70-130	9	25	
1,2-Dichloropropane	8.60		ug/L	10.00		86	70-130	3	25	
1,3,5-Trimethylbenzene	8.84		ug/L	10.00		88	70-130	0.8	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52347 - 5030B										
1,3-Dichlorobenzene	9.71		ug/L	10.00		97	70-130	2	25	
1,3-Dichloropropane	9.43		ug/L	10.00		94	70-130	3	25	
1,4-Dichlorobenzene	9.77		ug/L	10.00		98	70-130	4	25	
1,4-Dioxane - Screen	192		ug/L	200.0		96	0-332	13	200	
1-Chlorohexane	8.31		ug/L	10.00		83	70-130	4	25	
2,2-Dichloropropane	8.38		ug/L	10.00		84	70-130	9	25	
2-Butanone	42.6		ug/L	50.00		85	70-130	4	25	
2-Chlorotoluene	8.61		ug/L	10.00		86	70-130	0.5	25	
2-Hexanone	39.8		ug/L	50.00		80	70-130	3	25	
4-Chlorotoluene	8.52		ug/L	10.00		85	70-130	2	25	
4-Isopropyltoluene	8.56		ug/L	10.00		86	70-130	3	25	
4-Methyl-2-Pentanone	40.7		ug/L	50.00		81	70-130	8	25	
Acetone	38.1		ug/L	50.00		76	70-130	6	25	
Benzene	8.66		ug/L	10.00		87	70-130	5	25	
Bromobenzene	9.73		ug/L	10.00		97	70-130	0.6	25	
Bromochloromethane	10.2		ug/L	10.00		102	70-130	2	25	
Bromodichloromethane	9.61		ug/L	10.00		96	70-130	1	25	
Bromoform	10.9		ug/L	10.00		109	70-130	3	25	
Bromomethane	9.83		ug/L	10.00		98	70-130	13	25	
Carbon Disulfide	9.26		ug/L	10.00		93	70-130	6	25	
Carbon Tetrachloride	9.11		ug/L	10.00		91	70-130	4	25	
Chlorobenzene	9.59		ug/L	10.00		96	70-130	0.2	25	
Chloroethane	7.71		ug/L	10.00		77	70-130	8	25	
Chloroform	8.58		ug/L	10.00		86	70-130	6	25	
Chloromethane	8.01		ug/L	10.00		80	70-130	10	25	
cis-1,2-Dichloroethene	9.48		ug/L	10.00		95	70-130	3	25	
cis-1,3-Dichloropropene	8.23		ug/L	10.00		82	70-130	4	25	
Dibromochloromethane	9.75		ug/L	10.00		98	70-130	1	25	
Dibromomethane	9.68		ug/L	10.00		97	70-130	0.7	25	
Dichlorodifluoromethane	7.42		ug/L	10.00		74	70-130	6	25	
Diethyl Ether	7.11		ug/L	10.00		71	70-130	6	25	
Di-isopropyl ether	8.03		ug/L	10.00		80	70-130	3	25	
Ethyl tertiary-butyl ether	7.81		ug/L	10.00		78	70-130	3	25	
Ethylbenzene	8.39		ug/L	10.00		84	70-130	2	25	
Hexachlorobutadiene	9.30		ug/L	10.00		93	70-130	10	25	
Hexachloroethane	11.3		ug/L	10.00		113	70-130	0.7	25	
Isopropylbenzene	8.31		ug/L	10.00		83	70-130	0.6	25	
Methyl tert-Butyl Ether	7.77		ug/L	10.00		78	70-130	0.4	25	
Methylene Chloride	8.57		ug/L	10.00		86	70-130	24	25	
Naphthalene	7.87		ug/L	10.00		79	70-130	6	25	
n-Butylbenzene	8.51		ug/L	10.00		85	70-130	0.2	25	
n-Propylbenzene	8.23		ug/L	10.00		82	70-130	0.4	25	
sec-Butylbenzene	8.72		ug/L	10.00		87	70-130	2	25	
Styrene	8.31		ug/L	10.00		83	70-130	4	25	
tert-Butylbenzene	8.27		ug/L	10.00		83	70-130	4	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CJ52347 - 5030B										
Tertiary-amyl methyl ether	7.78		ug/L	10.00		78	70-130	3	25	
Tetrachloroethene	8.05		ug/L	10.00		80	70-130	5	25	
Tetrahydrofuran	8.34		ug/L	10.00		83	70-130	20	25	
Toluene	9.25		ug/L	10.00		92	70-130	4	25	
trans-1,2-Dichloroethene	9.64		ug/L	10.00		96	70-130	3	25	
trans-1,3-Dichloropropene	7.62		ug/L	10.00		76	70-130	1	25	
Trichloroethene	8.90		ug/L	10.00		89	70-130	1	25	
Trichlorofluoromethane	7.74		ug/L	10.00		77	70-130	5	25	
Trihalomethanes (Total)	38.8		mg/L							
Vinyl Acetate	15.9		ug/L	10.00		159	70-130	3	25	B+
Vinyl Chloride	7.74		ug/L	10.00		77	70-130	8	25	
Xylene O	9.20		ug/L	10.00		92	70-130	2	25	
Xylene P,M	18.5		ug/L	20.00		92	70-130	2	25	
Xylenes (Total)	27.7		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0208*		mg/L	*0.02500*		*83*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0235*		mg/L	*0.02500*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: Toluene-d8	*0.0253*		mg/L	*0.02500*		*101*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

Notes and Definitions

U	Analyte included in the analysis, but not detected
J	Reported between MDL and MRL
CD-	Continuing Calibration %Diff/Drift is below control limit (CD-).
B+	Blank Spike recovery is above upper control limit (B+).
B-	Blank Spike recovery is below lower control limit (B-).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1510503

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 15100503
Date Project Due: 10/26/15
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	No
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: 3.6		16. Are ESS labels on correct containers?	Yes No
Iced With: Ice		17. Were samples received intact?	Yes No
6. Was COC included with samples?	Yes	ESS Sample IDs: _____	
7. Was COC signed and dated by client?	Yes	Sub Lab: _____	
8. Does the COC match the sample	Yes	Analysis: _____	
9. Is COC complete and correct?	Yes	TAT: _____	

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?:_____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	40 ml - VOA	3	HCL
2	Yes	40 ml - VOA	3	HCL
3	Yes	40 ml - VOA	1	HCL

Completed By: _____ Date/Time: 10/19/15 1800

Reviewed By: _____ Date/Time: 10/19/15 1812

1

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston RI 02910-2211
Tel. (401)461-7181 Fax (401)461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1510503

Turn Time X Standard Other_____

Regulatory State: MA (RI) CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - GB

Electonic Deliverables (*Excel) Access PDF

Co. Name: GZA GeoEnvironmental	Project #: 33554.00	Project Name: 642 Allens Ave
Contact Person: Meg Kilpatrick	Proj. Location: 642 Allens Avenue Providence	
Address: 530 Broadway	City, State: Providence RI	Zip: 02909 PO #:
Tel.	email:	

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: VOCs
01	10/19	12:50	G	GW	ECA-36	2	3	VOA	40mL	X
02	10/19	13:45	G	GW	VHB-13	2	3	VOA	40mL	X
03	10/19	—	G	A	TRIP BLANK	2	1	VOA	40ml	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present X Yes ____No

Seals Intact ____ Yes ____No NA:____

Cooler Temperature: 3.6

Internal Use Only

[ ] Pickup

[ ] Technician____

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
10/19/15 14:35	10/19/15 1435		

* By circling MA-MCP, client acknowledges sampels were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

Report Method Blank & Laboratory Control Sample Results

CERTIFICATE OF ANALYSIS

Meg Kilpatrick
GZA GeoEnvironmental, Inc.
530 Broadway
Providence, RI 02909

RE: 642 Allens Ave (03.0033554.00)
ESS Laboratory Work Order Number: 1605607

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 4:04 pm, May 27, 2016

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

SAMPLE RECEIPT

The following samples were received on May 20, 2016 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1605607-01	VHB-6	Ground Water	8260B
1605607-02	VHB-3	Ground Water	8260B
1605607-03	BD052016	Ground Water	8260B
1605607-04	RCA-3	Ground Water	8260B
1605607-05	VHB-10	Ground Water	8260B
1605607-06	VHB-13	Ground Water	8260B
1605607-07	RCA-36	Ground Water	8260B
1605607-08	BD-051916	Ground Water	8260B
1605607-09	RCA-28	Ground Water	8260B
1605607-10	RCA-22	Ground Water	8260B
1605607-11	GZ-314D	Ground Water	8260B
1605607-12	RCA-38	Ground Water	8260B
1605607-13	GZ-314S	Ground Water	8260B
1605607-14	Trip Blank	Aqueous	8260B

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

PROJECT NARRATIVE

8260B Volatile Organic Compounds

1605607-01	**Present in Method Blank (B).**
	n-Butylbenzene
CE62341-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Hexachloroethane (137% @ 70-130%)
CE62341-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Chloroethane (59% @ 70-130%), Diethyl Ether (67% @ 70-130%), Vinyl Acetate (66% @ 70-130%)
CE62341-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Chloroethane (56% @ 70-130%), Vinyl Acetate (64% @ 70-130%)
CE62342-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Chloroethane (57% @ 70-130%)
CE62342-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Chloroethane (58% @ 70-130%)
CE62430-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (134% @ 70-130%)
CE62430-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (135% @ 70-130%)
CE62431-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (134% @ 70-130%)
CE62431-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (64% @ 70-130%)
CE62431-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (139% @ 70-130%), Vinyl Chloride (132% @ 70-130%)
CE62431-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (67% @ 70-130%)
CZE0399-CCV1	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	Chloroethane (35% @ 30%)
CZE0400-CCV1	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	Bromomethane (40% @ 30%)
CZE0423-CCV1	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	Bromomethane (43% @ 30%)
CZE0467-CCV1	**Continuing Calibration %Diff/Drift is above control limit (CD+).**
	Ethyl tertiary-butyl ether (34% @ 30%)

No other observations noted.

End of Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-6
Date Sampled: 05/20/16 09:58
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,2,4-Trimethylbenzene	**J 0.0007** (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/23/16 14:35	CZE0399	CE62341
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/23/16 14:35	CZE0399	CE62341
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 14:35	CZE0399	CE62341
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/23/16 14:35	CZE0399	CE62341
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/23/16 14:35	CZE0399	CE62341
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/23/16 14:35	CZE0399	CE62341
Acetone	ND (0.0100)	0.0027	8260B		1	05/23/16 14:35	CZE0399	CE62341
Benzene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-6
Date Sampled: 05/20/16 09:58
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/23/16 14:35	CZE0399	CE62341
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Bromoform	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/23/16 14:35	CZE0399	CE62341
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/23/16 14:35	CZE0399	CE62341
Chloroform	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/23/16 14:35	CZE0399	CE62341
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/23/16 14:35	CZE0399	CE62341
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 14:35	CZE0399	CE62341
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Ethylbenzene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Isopropylbenzene	**0.0011** (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 14:35	CZE0399	CE62341
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Naphthalene	**0.0147** (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
n-Butylbenzene	**B, J 0.0002** (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Styrene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-6
Date Sampled: 05/20/16 09:58
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/23/16 14:35	CZE0399	CE62341
Toluene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 14:35	CZE0399	CE62341
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/23/16 14:35	CZE0399	CE62341
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/23/16 14:35	CZE0399	CE62341
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Xylene O	**J 0.0003** (0.0010)	0.0001	8260B		1	05/23/16 14:35	CZE0399	CE62341
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/23/16 14:35	CZE0399	CE62341
Xylenes (Total)	ND (0.0020)		8260B		1	05/23/16 14:35		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*95 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*96 %*		*70-130*
Surrogate: Dibromofluoromethane	*104 %*		*70-130*
Surrogate: Toluene-d8	*105 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-3
Date Sampled: 05/20/16 09:31
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/23/16 15:02	CZE0399	CE62341
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/23/16 15:02	CZE0399	CE62341
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:02	CZE0399	CE62341
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/23/16 15:02	CZE0399	CE62341
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/23/16 15:02	CZE0399	CE62341
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/23/16 15:02	CZE0399	CE62341
Acetone	ND (0.0100)	0.0027	8260B		1	05/23/16 15:02	CZE0399	CE62341
Benzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-3
Date Sampled: 05/20/16 09:31
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:02	CZE0399	CE62341
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Bromoform	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/23/16 15:02	CZE0399	CE62341
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/23/16 15:02	CZE0399	CE62341
Chloroform	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:02	CZE0399	CE62341
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/23/16 15:02	CZE0399	CE62341
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 15:02	CZE0399	CE62341
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 15:02	CZE0399	CE62341
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Naphthalene	**J 0.0008** (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Styrene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-3
Date Sampled: 05/20/16 09:31
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/23/16 15:02	CZE0399	CE62341
Toluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 15:02	CZE0399	CE62341
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/23/16 15:02	CZE0399	CE62341
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/23/16 15:02	CZE0399	CE62341
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Xylene O	ND (0.0010)	0.0001	8260B		1	05/23/16 15:02	CZE0399	CE62341
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/23/16 15:02	CZE0399	CE62341
Xylenes (Total)	ND (0.0020)		8260B		1	05/23/16 15:02		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*92 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*93 %*		*70-130*
Surrogate: Dibromofluoromethane	*101 %*		*70-130*
Surrogate: Toluene-d8	*103 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD052016
Date Sampled: 05/20/16 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/23/16 15:28	CZE0399	CE62341
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/23/16 15:28	CZE0399	CE62341
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:28	CZE0399	CE62341
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/23/16 15:28	CZE0399	CE62341
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/23/16 15:28	CZE0399	CE62341
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/23/16 15:28	CZE0399	CE62341
Acetone	ND (0.0100)	0.0027	8260B		1	05/23/16 15:28	CZE0399	CE62341
Benzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD052016
Date Sampled: 05/20/16 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:28	CZE0399	CE62341
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Bromoform	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/23/16 15:28	CZE0399	CE62341
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/23/16 15:28	CZE0399	CE62341
Chloroform	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:28	CZE0399	CE62341
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/23/16 15:28	CZE0399	CE62341
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 15:28	CZE0399	CE62341
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 15:28	CZE0399	CE62341
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Naphthalene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Styrene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD052016
Date Sampled: 05/20/16 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/23/16 15:28	CZE0399	CE62341
Toluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 15:28	CZE0399	CE62341
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/23/16 15:28	CZE0399	CE62341
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/23/16 15:28	CZE0399	CE62341
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Xylene O	ND (0.0010)	0.0001	8260B		1	05/23/16 15:28	CZE0399	CE62341
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/23/16 15:28	CZE0399	CE62341
Xylenes (Total)	ND (0.0020)		8260B		1	05/23/16 15:28		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*105 %*		*70-130*
Surrogate: Toluene-d8	*105 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-3
Date Sampled: 05/20/16 08:49
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,2,4-Trimethylbenzene	**0.116** (0.0500)	0.0050	8260B		50	05/24/16 22:14	CZE0399	CE62341
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,3,5-Trimethylbenzene	**0.0250** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/23/16 20:44	CZE0399	CE62341
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/23/16 20:44	CZE0399	CE62341
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 20:44	CZE0399	CE62341
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/23/16 20:44	CZE0399	CE62341
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/23/16 20:44	CZE0399	CE62341
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
4-Isopropyltoluene	**0.0089** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/23/16 20:44	CZE0399	CE62341
Acetone	ND (0.0100)	0.0027	8260B		1	05/23/16 20:44	CZE0399	CE62341
Benzene	**0.0049** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-3
Date Sampled: 05/20/16 08:49
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/23/16 20:44	CZE0399	CE62341
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Bromoform	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/23/16 20:44	CZE0399	CE62341
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/23/16 20:44	CZE0399	CE62341
Chloroform	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/23/16 20:44	CZE0399	CE62341
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/23/16 20:44	CZE0399	CE62341
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 20:44	CZE0399	CE62341
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Ethylbenzene	**0.0261** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Isopropylbenzene	**0.0194** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 20:44	CZE0399	CE62341
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Naphthalene	**0.554** (0.0500)	0.0100	8260B		50	05/24/16 22:14	CZE0399	CE62341
n-Butylbenzene	**0.0121** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
n-Propylbenzene	**0.0122** (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
sec-Butylbenzene	**0.0033** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Styrene	ND (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
tert-Butylbenzene	**0.0011** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-3
Date Sampled: 05/20/16 08:49
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/23/16 20:44	CZE0399	CE62341
Toluene	**0.0030** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 20:44	CZE0399	CE62341
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/23/16 20:44	CZE0399	CE62341
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/23/16 20:44	CZE0399	CE62341
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Xylene O	**0.0173** (0.0010)	0.0001	8260B		1	05/23/16 20:44	CZE0399	CE62341
Xylene P,M	**0.0192** (0.0020)	0.0002	8260B		1	05/23/16 20:44	CZE0399	CE62341
Xylenes (Total)	**0.0365** (0.0020)		8260B		1	05/23/16 20:44		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*92 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*105 %*		*70-130*
Surrogate: Dibromofluoromethane	*102 %*		*70-130*
Surrogate: Toluene-d8	*105 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-10
Date Sampled: 05/20/16 12:49
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,2,4-Trimethylbenzene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/23/16 15:54	CZE0399	CE62341
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/23/16 15:54	CZE0399	CE62341
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:54	CZE0399	CE62341
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/23/16 15:54	CZE0399	CE62341
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/23/16 15:54	CZE0399	CE62341
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/23/16 15:54	CZE0399	CE62341
Acetone	ND (0.0100)	0.0027	8260B		1	05/23/16 15:54	CZE0399	CE62341
Benzene	**0.0326** (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-10
Date Sampled: 05/20/16 12:49
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:54	CZE0399	CE62341
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Bromoform	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/23/16 15:54	CZE0399	CE62341
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/23/16 15:54	CZE0399	CE62341
Chloroform	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/23/16 15:54	CZE0399	CE62341
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/23/16 15:54	CZE0399	CE62341
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 15:54	CZE0399	CE62341
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Ethylbenzene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Isopropylbenzene	**0.0020** (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 15:54	CZE0399	CE62341
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Naphthalene	**0.0027** (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
n-Propylbenzene	**J 0.0003** (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Styrene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-10
Date Sampled: 05/20/16 12:49
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/23/16 15:54	CZE0399	CE62341
Toluene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 15:54	CZE0399	CE62341
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/23/16 15:54	CZE0399	CE62341
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/23/16 15:54	CZE0399	CE62341
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Xylene O	**0.0015** (0.0010)	0.0001	8260B		1	05/23/16 15:54	CZE0399	CE62341
Xylene P,M	**J 0.0002** (0.0020)	0.0002	8260B		1	05/23/16 15:54	CZE0399	CE62341
Xylenes (Total)	ND (0.0020)		8260B		1	05/23/16 15:54		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*98 %*		*70-130*
Surrogate: Dibromofluoromethane	*100 %*		*70-130*
Surrogate: Toluene-d8	*104 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-13
Date Sampled: 05/19/16 10:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/23/16 16:20	CZE0399	CE62341
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/23/16 16:20	CZE0399	CE62341
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 16:20	CZE0399	CE62341
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/23/16 16:20	CZE0399	CE62341
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/23/16 16:20	CZE0399	CE62341
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/23/16 16:20	CZE0399	CE62341
Acetone	ND (0.0100)	0.0027	8260B		1	05/23/16 16:20	CZE0399	CE62341
Benzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-13
Date Sampled: 05/19/16 10:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/23/16 16:20	CZE0399	CE62341
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Bromoform	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/23/16 16:20	CZE0399	CE62341
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/23/16 16:20	CZE0399	CE62341
Chloroform	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/23/16 16:20	CZE0399	CE62341
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/23/16 16:20	CZE0399	CE62341
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 16:20	CZE0399	CE62341
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 16:20	CZE0399	CE62341
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Naphthalene	**J 0.0002** (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Styrene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-13
Date Sampled: 05/19/16 10:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/23/16 16:20	CZE0399	CE62341
Toluene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 16:20	CZE0399	CE62341
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/23/16 16:20	CZE0399	CE62341
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/23/16 16:20	CZE0399	CE62341
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Xylene O	ND (0.0010)	0.0001	8260B		1	05/23/16 16:20	CZE0399	CE62341
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/23/16 16:20	CZE0399	CE62341
Xylenes (Total)	ND (0.0020)		8260B		1	05/23/16 16:20		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*91 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*96 %*		*70-130*
Surrogate: Dibromofluoromethane	*102 %*		*70-130*
Surrogate: Toluene-d8	*104 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 05/19/16 11:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,2,4-Trimethylbenzene	**0.0049** (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,3,5-Trimethylbenzene	**J 0.0004** (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/23/16 16:47	CZE0399	CE62341
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/23/16 16:47	CZE0399	CE62341
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 16:47	CZE0399	CE62341
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/23/16 16:47	CZE0399	CE62341
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/23/16 16:47	CZE0399	CE62341
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/23/16 16:47	CZE0399	CE62341
Acetone	ND (0.0100)	0.0027	8260B		1	05/23/16 16:47	CZE0399	CE62341
Benzene	**0.0468** (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 05/19/16 11:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/23/16 16:47	CZE0399	CE62341
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Bromoform	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/23/16 16:47	CZE0399	CE62341
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/23/16 16:47	CZE0399	CE62341
Chloroform	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/23/16 16:47	CZE0399	CE62341
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/23/16 16:47	CZE0399	CE62341
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 16:47	CZE0399	CE62341
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Ethylbenzene	**0.0043** (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Isopropylbenzene	**0.0018** (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 16:47	CZE0399	CE62341
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Naphthalene	**0.0050** (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
n-Propylbenzene	**J 0.0009** (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Styrene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 05/19/16 11:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/23/16 16:47	CZE0399	CE62341
Toluene	**J 0.0003** (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 16:47	CZE0399	CE62341
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/23/16 16:47	CZE0399	CE62341
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/23/16 16:47	CZE0399	CE62341
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Xylene O	**0.0024** (0.0010)	0.0001	8260B		1	05/23/16 16:47	CZE0399	CE62341
Xylene P,M	**J 0.0009** (0.0020)	0.0002	8260B		1	05/23/16 16:47	CZE0399	CE62341
Xylenes (Total)	**0.0032** (0.0020)		8260B		1	05/23/16 16:47		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*98 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*101 %*		*70-130*
Surrogate: Toluene-d8	*104 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD-051916
Date Sampled: 05/19/16 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,2,4-Trimethylbenzene	**0.0033** (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,3,5-Trimethylbenzene	**J 0.0003** (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 18:52	CZE0422	CE62430
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 18:52	CZE0422	CE62430
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:52	CZE0422	CE62430
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 18:52	CZE0422	CE62430
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 18:52	CZE0422	CE62430
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 18:52	CZE0422	CE62430
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 18:52	CZE0422	CE62430
Benzene	**0.0363** (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD-051916
Date Sampled: 05/19/16 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:52	CZE0422	CE62430
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 18:52	CZE0422	CE62430
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 18:52	CZE0422	CE62430
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:52	CZE0422	CE62430
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 18:52	CZE0422	CE62430
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 18:52	CZE0422	CE62430
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Ethylbenzene	**0.0033** (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Isopropylbenzene	**0.0010** (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 18:52	CZE0422	CE62430
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Naphthalene	**0.0034** (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
n-Propylbenzene	**J 0.0005** (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
sec-Butylbenzene	**J 0.0001** (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Styrene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD-051916
Date Sampled: 05/19/16 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 18:52	CZE0422	CE62430
Toluene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 18:52	CZE0422	CE62430
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 18:52	CZE0422	CE62430
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 18:52	CZE0422	CE62430
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Xylene O	**0.0017** (0.0010)	0.0001	8260B		1	05/24/16 18:52	CZE0422	CE62430
Xylene P,M	**J 0.0006** (0.0020)	0.0002	8260B		1	05/24/16 18:52	CZE0422	CE62430
Xylenes (Total)	**0.0023** (0.0020)		8260B		1	05/24/16 18:52		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*100 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*96 %*		*70-130*
Surrogate: Dibromofluoromethane	*99 %*		*70-130*
Surrogate: Toluene-d8	*96 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-28
Date Sampled: 05/19/16 12:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,2,4-Trimethylbenzene	**0.105** (0.0500)	0.0050	8260B		50	05/25/16 4:33	CZE0400	CE62342
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,3,5-Trimethylbenzene	**0.0621** (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 10:53	CZE0400	CE62342
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 10:53	CZE0400	CE62342
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 10:53	CZE0400	CE62342
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 10:53	CZE0400	CE62342
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 10:53	CZE0400	CE62342
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
4-Isopropyltoluene	**0.0013** (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 10:53	CZE0400	CE62342
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 10:53	CZE0400	CE62342
Benzene	**0.0210** (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-28
Date Sampled: 05/19/16 12:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 10:53	CZE0400	CE62342
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 10:53	CZE0400	CE62342
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 10:53	CZE0400	CE62342
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 10:53	CZE0400	CE62342
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 10:53	CZE0400	CE62342
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 10:53	CZE0400	CE62342
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Ethylbenzene	**0.0523** (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Isopropylbenzene	**0.0048** (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 10:53	CZE0400	CE62342
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Naphthalene	**3.19** (0.0500)	0.0100	8260B		50	05/25/16 4:33	CZE0400	CE62342
n-Butylbenzene	**0.0020** (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
n-Propylbenzene	**J 0.0010** (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
sec-Butylbenzene	**J 0.0003** (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Styrene	**0.0117** (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-28
Date Sampled: 05/19/16 12:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 10:53	CZE0400	CE62342
Toluene	**0.0970** (0.0010)	0.0001	8260B		1	05/24/16 10:53	CZE0400	CE62342
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 10:53	CZE0400	CE62342
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 10:53	CZE0400	CE62342
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 10:53	CZE0400	CE62342
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/24/16 10:53	CZE0400	CE62342
Xylene O	**0.128** (0.0500)	0.0050	8260B		50	05/25/16 4:33	CZE0400	CE62342
Xylene P,M	**0.147** (0.100)	0.0100	8260B		50	05/25/16 4:33	CZE0400	CE62342
Xylenes (Total)	**0.275** (0.100)		8260B		50	05/25/16 4:33		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*82 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*95 %*		*70-130*
Surrogate: Toluene-d8	*97 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-22
Date Sampled: 05/19/16 13:06
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,2,4-Trimethylbenzene	**0.0084** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,3,5-Trimethylbenzene	**J 0.0005** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/23/16 21:10	CZE0399	CE62341
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/23/16 21:10	CZE0399	CE62341
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 21:10	CZE0399	CE62341
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/23/16 21:10	CZE0399	CE62341
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/23/16 21:10	CZE0399	CE62341
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
4-Isopropyltoluene	**J 0.0005** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/23/16 21:10	CZE0399	CE62341
Acetone	ND (0.0100)	0.0027	8260B		1	05/23/16 21:10	CZE0399	CE62341
Benzene	**1.11** (0.0200)	0.0020	8260B		20	05/24/16 20:58	CZE0399	CE62341
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-22
Date Sampled: 05/19/16 13:06
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/23/16 21:10	CZE0399	CE62341
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Bromoform	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/23/16 21:10	CZE0399	CE62341
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Chlorobenzene	**J 0.0001** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/23/16 21:10	CZE0399	CE62341
Chloroform	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
cis-1,2-Dichloroethene	**J 0.0003** (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/23/16 21:10	CZE0399	CE62341
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/23/16 21:10	CZE0399	CE62341
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 21:10	CZE0399	CE62341
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Ethylbenzene	**0.0668** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Isopropylbenzene	**0.0398** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 21:10	CZE0399	CE62341
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Naphthalene	**0.614** (0.0200)	0.0040	8260B		20	05/24/16 20:58	CZE0399	CE62341
n-Butylbenzene	**0.0046** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
n-Propylbenzene	**0.0103** (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
sec-Butylbenzene	**0.0022** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Styrene	ND (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
tert-Butylbenzene	**J 0.0006** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-22
Date Sampled: 05/19/16 13:06
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/23/16 21:10	CZE0399	CE62341
Toluene	**0.0014** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 21:10	CZE0399	CE62341
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/23/16 21:10	CZE0399	CE62341
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/23/16 21:10	CZE0399	CE62341
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Xylene O	**0.0197** (0.0010)	0.0001	8260B		1	05/23/16 21:10	CZE0399	CE62341
Xylene P,M	**0.0051** (0.0020)	0.0002	8260B		1	05/23/16 21:10	CZE0399	CE62341
Xylenes (Total)	**0.0248** (0.0020)		8260B		1	05/23/16 21:10		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*85 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*102 %*		*70-130*
Surrogate: Dibromofluoromethane	*95 %*		*70-130*
Surrogate: Toluene-d8	*99 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314D
Date Sampled: 05/19/16 12:09
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,2,4-Trimethylbenzene	**0.120** (0.0500)	0.0050	8260B		50	05/25/16 5:23	CZE0423	CE62431
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,3,5-Trimethylbenzene	**0.0185** (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/25/16 13:52	CZE0423	CE62431
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/25/16 13:52	CZE0423	CE62431
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/25/16 13:52	CZE0423	CE62431
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/25/16 13:52	CZE0423	CE62431
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/25/16 13:52	CZE0423	CE62431
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
4-Isopropyltoluene	**0.0035** (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/25/16 13:52	CZE0423	CE62431
Acetone	ND (0.0100)	0.0027	8260B		1	05/25/16 13:52	CZE0423	CE62431
Benzene	**1.22** (0.0500)	0.0050	8260B		50	05/25/16 5:23	CZE0423	CE62431
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314D
Date Sampled: 05/19/16 12:09
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/25/16 13:52	CZE0423	CE62431
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
Bromoform	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/25/16 13:52	CZE0423	CE62431
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/25/16 13:52	CZE0423	CE62431
Chloroform	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/25/16 13:52	CZE0423	CE62431
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/25/16 13:52	CZE0423	CE62431
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/25/16 13:52	CZE0423	CE62431
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
Ethylbenzene	**0.438** (0.0500)	0.0050	8260B		50	05/25/16 5:23	CZE0423	CE62431
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Isopropylbenzene	**0.0253** (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/25/16 13:52	CZE0423	CE62431
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Naphthalene	**2.52** (0.0500)	0.0100	8260B		50	05/25/16 5:23	CZE0423	CE62431
n-Butylbenzene	**0.0027** (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
n-Propylbenzene	**0.0082** (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
sec-Butylbenzene	**J 0.0008** (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
Styrene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314D
Date Sampled: 05/19/16 12:09
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-11
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/25/16 13:52	CZE0423	CE62431
Toluene	**0.0086** (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/25/16 13:52	CZE0423	CE62431
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/25/16 13:52	CZE0423	CE62431
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/25/16 13:52	CZE0423	CE62431
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Xylene O	**0.0964** (0.0010)	0.0001	8260B		1	05/25/16 13:52	CZE0423	CE62431
Xylene P,M	**0.0208** (0.0020)	0.0002	8260B		1	05/25/16 13:52	CZE0423	CE62431
Xylenes (Total)	**0.117** (0.0020)		8260B		1	05/25/16 13:52		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*84 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*96 %*		*70-130*
Surrogate: Dibromofluoromethane	*90 %*		*70-130*
Surrogate: Toluene-d8	*97 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-38
Date Sampled: 05/19/16 13:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 18:26	CZE0422	CE62430
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 18:26	CZE0422	CE62430
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:26	CZE0422	CE62430
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 18:26	CZE0422	CE62430
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 18:26	CZE0422	CE62430
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 18:26	CZE0422	CE62430
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 18:26	CZE0422	CE62430
Benzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-38
Date Sampled: 05/19/16 13:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:26	CZE0422	CE62430
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 18:26	CZE0422	CE62430
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 18:26	CZE0422	CE62430
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:26	CZE0422	CE62430
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 18:26	CZE0422	CE62430
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 18:26	CZE0422	CE62430
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Isopropylbenzene	**J 0.0001** (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 18:26	CZE0422	CE62430
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Naphthalene	**J 0.0006** (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Styrene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-38
Date Sampled: 05/19/16 13:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-12
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 18:26	CZE0422	CE62430
Toluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 18:26	CZE0422	CE62430
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 18:26	CZE0422	CE62430
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 18:26	CZE0422	CE62430
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Xylene O	**J 0.0001** (0.0010)	0.0001	8260B		1	05/24/16 18:26	CZE0422	CE62430
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/24/16 18:26	CZE0422	CE62430
Xylenes (Total)	ND (0.0020)		8260B		1	05/24/16 18:26		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*100 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*99 %*		*70-130*
Surrogate: Toluene-d8	*96 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314S
Date Sampled: 05/19/16 11:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,2,4-Trimethylbenzene	**0.338** (0.0500)	0.0050	8260B		50	05/26/16 18:47	CZE0400	CE62342
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,3,5-Trimethylbenzene	**0.0862** (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 11:19	CZE0400	CE62342
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 11:19	CZE0400	CE62342
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 11:19	CZE0400	CE62342
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 11:19	CZE0400	CE62342
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 11:19	CZE0400	CE62342
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
4-Isopropyltoluene	**0.0141** (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 11:19	CZE0400	CE62342
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 11:19	CZE0400	CE62342
Benzene	**4.83** (0.0500)	0.0050	8260B		50	05/26/16 18:47	CZE0400	CE62342
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314S
Date Sampled: 05/19/16 11:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 11:19	CZE0400	CE62342
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 11:19	CZE0400	CE62342
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
Chlorobenzene	**J 0.0003** (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 11:19	CZE0400	CE62342
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 11:19	CZE0400	CE62342
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 11:19	CZE0400	CE62342
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 11:19	CZE0400	CE62342
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
Ethylbenzene	**1.83** (0.0500)	0.0050	8260B		50	05/26/16 18:47	CZE0400	CE62342
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Isopropylbenzene	**0.0794** (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 11:19	CZE0400	CE62342
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Naphthalene	**6.41** (0.100)	0.0200	8260B		100	05/25/16 5:48	CZE0400	CE62342
n-Butylbenzene	**0.0140** (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
n-Propylbenzene	**0.0229** (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
sec-Butylbenzene	**0.0026** (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
Styrene	**0.0032** (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-314S
Date Sampled: 05/19/16 11:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-13
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 11:19	CZE0400	CE62342
Toluene	**0.0430** (0.0010)	0.0001	8260B		1	05/24/16 11:19	CZE0400	CE62342
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 11:19	CZE0400	CE62342
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 11:19	CZE0400	CE62342
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 11:19	CZE0400	CE62342
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/24/16 11:19	CZE0400	CE62342
Xylene O	**0.500** (0.0500)	0.0050	8260B		50	05/26/16 18:47	CZE0400	CE62342
Xylene P,M	**0.180** (0.100)	0.0100	8260B		50	05/26/16 18:47	CZE0400	CE62342
Xylenes (Total)	**0.681** (0.100)		8260B		50	05/26/16 18:47		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*80 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*99 %*		*70-130*
Surrogate: Dibromofluoromethane	*93 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 05/19/16 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-14
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/23/16 14:09	CZE0399	CE62341
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/23/16 14:09	CZE0399	CE62341
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/23/16 14:09	CZE0399	CE62341
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/23/16 14:09	CZE0399	CE62341
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/23/16 14:09	CZE0399	CE62341
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/23/16 14:09	CZE0399	CE62341
Acetone	ND (0.0100)	0.0027	8260B		1	05/23/16 14:09	CZE0399	CE62341
Benzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 05/19/16 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-14
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/23/16 14:09	CZE0399	CE62341
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Bromoform	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/23/16 14:09	CZE0399	CE62341
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/23/16 14:09	CZE0399	CE62341
Chloroform	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/23/16 14:09	CZE0399	CE62341
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/23/16 14:09	CZE0399	CE62341
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 14:09	CZE0399	CE62341
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/23/16 14:09	CZE0399	CE62341
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Naphthalene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Styrene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 05/19/16 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605607
ESS Laboratory Sample ID: 1605607-14
Sample Matrix: Aqueous
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/23/16 14:09	CZE0399	CE62341
Toluene	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/23/16 14:09	CZE0399	CE62341
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/23/16 14:09	CZE0399	CE62341
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/23/16 14:09	CZE0399	CE62341
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Xylene O	ND (0.0010)	0.0001	8260B		1	05/23/16 14:09	CZE0399	CE62341
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/23/16 14:09	CZE0399	CE62341
Xylenes (Total)	ND (0.0020)		8260B		1	05/23/16 14:09		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*95 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*96 %*		*70-130*
Surrogate: Dibromofluoromethane	*100 %*		*70-130*
Surrogate: Toluene-d8	*103 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62341 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62341 - 5030B										
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	0.0001	0.0010	mg/L							J
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0228*		mg/L	*0.02500*		*91*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0243*		mg/L	*0.02500*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0241*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: Toluene-d8	*0.0259*		mg/L	*0.02500*		*104*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.99		ug/L	10.00		100	70-130			
1,1,1-Trichloroethane	9.83		ug/L	10.00		98	70-130			
1,1,2,2-Tetrachloroethane	8.72		ug/L	10.00		87	70-130			
1,1,2-Trichloroethane	8.51		ug/L	10.00		85	70-130			
1,1-Dichloroethane	7.64		ug/L	10.00		76	70-130			
1,1-Dichloroethene	9.53		ug/L	10.00		95	70-130			
1,1-Dichloropropene	8.71		ug/L	10.00		87	70-130			
1,2,3-Trichlorobenzene	11.7		ug/L	10.00		117	70-130			
1,2,3-Trichloropropane	7.85		ug/L	10.00		78	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62341 - 5030B										
1,2,4-Trichlorobenzene	11.4		ug/L	10.00		114	70-130			
1,2,4-Trimethylbenzene	9.43		ug/L	10.00		94	70-130			
1,2-Dibromo-3-Chloropropane	8.33		ug/L	10.00		83	70-130			
1,2-Dibromoethane	10.0		ug/L	10.00		100	70-130			
1,2-Dichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,2-Dichloroethane	9.06		ug/L	10.00		91	70-130			
1,2-Dichloropropane	7.49		ug/L	10.00		75	70-130			
1,3,5-Trimethylbenzene	9.55		ug/L	10.00		96	70-130			
1,3-Dichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,3-Dichloropropane	8.65		ug/L	10.00		86	70-130			
1,4-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,4-Dioxane - Screen	189		ug/L	200.0		95	0-332			
1-Chlorohexane	8.19		ug/L	10.00		82	70-130			
2,2-Dichloropropane	9.56		ug/L	10.00		96	70-130			
2-Butanone	36.4		ug/L	50.00		73	70-130			
2-Chlorotoluene	9.33		ug/L	10.00		93	70-130			
2-Hexanone	42.0		ug/L	50.00		84	70-130			
4-Chlorotoluene	9.20		ug/L	10.00		92	70-130			
4-Isopropyltoluene	9.83		ug/L	10.00		98	70-130			
4-Methyl-2-Pentanone	40.0		ug/L	50.00		80	70-130			
Acetone	41.8		ug/L	50.00		84	70-130			
Benzene	8.15		ug/L	10.00		82	70-130			
Bromobenzene	10.2		ug/L	10.00		102	70-130			
Bromochloromethane	9.32		ug/L	10.00		93	70-130			
Bromodichloromethane	9.30		ug/L	10.00		93	70-130			
Bromoform	11.6		ug/L	10.00		116	70-130			
Bromomethane	10.9		ug/L	10.00		109	70-130			
Carbon Disulfide	7.60		ug/L	10.00		76	70-130			
Carbon Tetrachloride	10.9		ug/L	10.00		109	70-130			
Chlorobenzene	10.4		ug/L	10.00		104	70-130			
Chloroethane	5.93		ug/L	10.00		59	70-130			B-
Chloroform	8.98		ug/L	10.00		90	70-130			
Chloromethane	8.83		ug/L	10.00		88	70-130			
cis-1,2-Dichloroethene	9.44		ug/L	10.00		94	70-130			
cis-1,3-Dichloropropene	8.39		ug/L	10.00		84	70-130			
Dibromochloromethane	10.6		ug/L	10.00		106	70-130			
Dibromomethane	9.67		ug/L	10.00		97	70-130			
Dichlorodifluoromethane	12.5		ug/L	10.00		125	70-130			
Diethyl Ether	6.69		ug/L	10.00		67	70-130			B-
Di-isopropyl ether	7.09		ug/L	10.00		71	70-130			
Ethyl tertiary-butyl ether	7.49		ug/L	10.00		75	70-130			
Ethylbenzene	9.18		ug/L	10.00		92	70-130			
Hexachlorobutadiene	10.9		ug/L	10.00		109	70-130			
Hexachloroethane	13.7		ug/L	10.00		137	70-130			B+
Isopropylbenzene	9.51		ug/L	10.00		95	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62341 - 5030B										
Methyl tert-Butyl Ether	8.15		ug/L	10.00		82	70-130			
Methylene Chloride	8.83		ug/L	10.00		88	70-130			
Naphthalene	11.0		ug/L	10.00		110	70-130			
n-Butylbenzene	9.82		ug/L	10.00		98	70-130			
n-Propylbenzene	8.95		ug/L	10.00		90	70-130			
sec-Butylbenzene	10.6		ug/L	10.00		106	70-130			
Styrene	9.84		ug/L	10.00		98	70-130			
tert-Butylbenzene	10.2		ug/L	10.00		102	70-130			
Tertiary-amyl methyl ether	7.54		ug/L	10.00		75	70-130			
Tetrachloroethene	8.74		ug/L	10.00		87	70-130			
Tetrahydrofuran	8.72		ug/L	10.00		87	70-130			
Toluene	9.08		ug/L	10.00		91	70-130			
trans-1,2-Dichloroethene	9.59		ug/L	10.00		96	70-130			
trans-1,3-Dichloropropene	8.33		ug/L	10.00		83	70-130			
Trichloroethene	9.46		ug/L	10.00		95	70-130			
Trichlorofluoromethane	9.58		ug/L	10.00		96	70-130			
Vinyl Acetate	6.64		ug/L	10.00		66	70-130			B-
Vinyl Chloride	9.12		ug/L	10.00		91	70-130			
Xylene O	10.2		ug/L	10.00		102	70-130			
Xylene P,M	20.1		ug/L	20.00		100	70-130			
Xylenes (Total)	30.3		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0236*		mg/L	*0.02500*		*94*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0253*		mg/L	*0.02500*		*101*	*70-130*			
Surrogate: Toluene-d8	*0.0254*		mg/L	*0.02500*		*101*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	10.3		ug/L	10.00		103	70-130	3	25	
1,1,1-Trichloroethane	10.0		ug/L	10.00		100	70-130	2	25	
1,1,2,2-Tetrachloroethane	8.82		ug/L	10.00		88	70-130	1	25	
1,1,2-Trichloroethane	8.44		ug/L	10.00		84	70-130	0.8	25	
1,1-Dichloroethane	7.80		ug/L	10.00		78	70-130	2	25	
1,1-Dichloroethene	9.66		ug/L	10.00		97	70-130	1	25	
1,1-Dichloropropene	8.53		ug/L	10.00		85	70-130	2	25	
1,2,3-Trichlorobenzene	10.9		ug/L	10.00		109	70-130	7	25	
1,2,3-Trichloropropane	8.12		ug/L	10.00		81	70-130	3	25	
1,2,4-Trichlorobenzene	10.5		ug/L	10.00		105	70-130	8	25	
1,2,4-Trimethylbenzene	9.66		ug/L	10.00		97	70-130	2	25	
1,2-Dibromo-3-Chloropropane	8.92		ug/L	10.00		89	70-130	7	25	
1,2-Dibromoethane	10.1		ug/L	10.00		101	70-130	0.7	25	
1,2-Dichlorobenzene	10.7		ug/L	10.00		107	70-130	0.4	25	
1,2-Dichloroethane	9.17		ug/L	10.00		92	70-130	1	25	
1,2-Dichloropropane	7.70		ug/L	10.00		77	70-130	3	25	
1,3,5-Trimethylbenzene	9.87		ug/L	10.00		99	70-130	3	25	
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130	1	25	
1,3-Dichloropropane	8.72		ug/L	10.00		87	70-130	0.8	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62341 - 5030B										
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	2	25	
1,4-Dioxane - Screen	190		ug/L	200.0		95	0-332	0.5	200	
1-Chlorohexane	8.38		ug/L	10.00		84	70-130	2	25	
2,2-Dichloropropane	9.45		ug/L	10.00		94	70-130	1	25	
2-Butanone	37.2		ug/L	50.00		74	70-130	2	25	
2-Chlorotoluene	9.10		ug/L	10.00		91	70-130	2	25	
2-Hexanone	39.9		ug/L	50.00		80	70-130	5	25	
4-Chlorotoluene	9.37		ug/L	10.00		94	70-130	2	25	
4-Isopropyltoluene	9.60		ug/L	10.00		96	70-130	2	25	
4-Methyl-2-Pentanone	37.1		ug/L	50.00		74	70-130	8	25	
Acetone	39.1		ug/L	50.00		78	70-130	7	25	
Benzene	8.28		ug/L	10.00		83	70-130	2	25	
Bromobenzene	10.3		ug/L	10.00		103	70-130	1	25	
Bromochloromethane	9.78		ug/L	10.00		98	70-130	5	25	
Bromodichloromethane	9.30		ug/L	10.00		93	70-130	0	25	
Bromoform	11.2		ug/L	10.00		112	70-130	3	25	
Bromomethane	11.4		ug/L	10.00		114	70-130	5	25	
Carbon Disulfide	7.85		ug/L	10.00		78	70-130	3	25	
Carbon Tetrachloride	10.8		ug/L	10.00		108	70-130	0.5	25	
Chlorobenzene	10.5		ug/L	10.00		105	70-130	1	25	
Chloroethane	5.55		ug/L	10.00		56	70-130	7	25	B-
Chloroform	9.10		ug/L	10.00		91	70-130	1	25	
Chloromethane	9.05		ug/L	10.00		90	70-130	2	25	
cis-1,2-Dichloroethene	9.77		ug/L	10.00		98	70-130	3	25	
cis-1,3-Dichloropropene	8.65		ug/L	10.00		86	70-130	3	25	
Dibromochloromethane	10.4		ug/L	10.00		104	70-130	1	25	
Dibromomethane	9.59		ug/L	10.00		96	70-130	0.8	25	
Dichlorodifluoromethane	12.9		ug/L	10.00		129	70-130	3	25	
Diethyl Ether	7.06		ug/L	10.00		71	70-130	5	25	
Di-isopropyl ether	7.26		ug/L	10.00		73	70-130	2	25	
Ethyl tertiary-butyl ether	7.53		ug/L	10.00		75	70-130	0.5	25	
Ethylbenzene	9.31		ug/L	10.00		93	70-130	1	25	
Hexachlorobutadiene	10.7		ug/L	10.00		107	70-130	2	25	
Hexachloroethane	12.9		ug/L	10.00		129	70-130	6	25	
Isopropylbenzene	9.76		ug/L	10.00		98	70-130	3	25	
Methyl tert-Butyl Ether	8.09		ug/L	10.00		81	70-130	0.7	25	
Methylene Chloride	8.67		ug/L	10.00		87	70-130	2	25	
Naphthalene	10.1		ug/L	10.00		101	70-130	8	25	
n-Butylbenzene	9.38		ug/L	10.00		94	70-130	5	25	
n-Propylbenzene	9.08		ug/L	10.00		91	70-130	1	25	
sec-Butylbenzene	10.8		ug/L	10.00		108	70-130	0.9	25	
Styrene	9.81		ug/L	10.00		98	70-130	0.3	25	
tert-Butylbenzene	10.1		ug/L	10.00		101	70-130	0.5	25	
Tertiary-amyl methyl ether	7.60		ug/L	10.00		76	70-130	0.8	25	
Tetrachloroethene	8.95		ug/L	10.00		90	70-130	2	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62341 - 5030B										
Tetrahydrofuran	7.90		ug/L	10.00		79	70-130	10	25	
Toluene	9.34		ug/L	10.00		93	70-130	3	25	
trans-1,2-Dichloroethene	9.42		ug/L	10.00		94	70-130	2	25	
trans-1,3-Dichloropropene	8.34		ug/L	10.00		83	70-130	0.1	25	
Trichloroethene	9.86		ug/L	10.00		99	70-130	4	25	
Trichlorofluoromethane	9.81		ug/L	10.00		98	70-130	2	25	
Vinyl Acetate	6.44		ug/L	10.00		64	70-130	3	25	B-
Vinyl Chloride	9.13		ug/L	10.00		91	70-130	0.1	25	
Xylene O	10.5		ug/L	10.00		105	70-130	3	25	
Xylene P,M	20.4		ug/L	20.00		102	70-130	2	25	
Xylenes (Total)	30.9		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0239*		mg/L	*0.02500*		*95*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0244*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0258*		mg/L	*0.02500*		*103*	*70-130*			
Surrogate: Toluene-d8	*0.0257*		mg/L	*0.02500*		*103*	*70-130*			
Batch CE62342 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0224*		mg/L	*0.02500*		*89*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0239*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0248*		mg/L	*0.02500*		*99*	*70-130*			
Surrogate: Toluene-d8	*0.0254*		mg/L	*0.02500*		*102*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.65		ug/L	10.00		96	70-130			
1,1,1-Trichloroethane	9.87		ug/L	10.00		99	70-130			
1,1,2,2-Tetrachloroethane	8.35		ug/L	10.00		84	70-130			
1,1,2-Trichloroethane	9.03		ug/L	10.00		90	70-130			
1,1-Dichloroethane	7.86		ug/L	10.00		79	70-130			
1,1-Dichloroethene	9.97		ug/L	10.00		100	70-130			
1,1-Dichloropropene	9.22		ug/L	10.00		92	70-130			
1,2,3-Trichlorobenzene	11.7		ug/L	10.00		117	70-130			
1,2,3-Trichloropropane	7.79		ug/L	10.00		78	70-130			
1,2,4-Trichlorobenzene	11.3		ug/L	10.00		113	70-130			
1,2,4-Trimethylbenzene	10.1		ug/L	10.00		101	70-130			
1,2-Dibromo-3-Chloropropane	8.77		ug/L	10.00		88	70-130			
1,2-Dibromoethane	10.2		ug/L	10.00		102	70-130			
1,2-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,2-Dichloroethane	9.23		ug/L	10.00		92	70-130			
1,2-Dichloropropane	7.99		ug/L	10.00		80	70-130			
1,3,5-Trimethylbenzene	10.3		ug/L	10.00		103	70-130			
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,3-Dichloropropane	8.37		ug/L	10.00		84	70-130			
1,4-Dichlorobenzene	10.3		ug/L	10.00		103	70-130			
1,4-Dioxane - Screen	222		ug/L	200.0		111	0-332			
1-Chlorohexane	8.48		ug/L	10.00		85	70-130			
2,2-Dichloropropane	7.61		ug/L	10.00		76	70-130			
2-Butanone	38.7		ug/L	50.00		77	70-130			
2-Chlorotoluene	9.34		ug/L	10.00		93	70-130			
2-Hexanone	45.9		ug/L	50.00		92	70-130			
4-Chlorotoluene	9.41		ug/L	10.00		94	70-130			
4-Isopropyltoluene	10.3		ug/L	10.00		103	70-130			
4-Methyl-2-Pentanone	43.3		ug/L	50.00		87	70-130			
Acetone	52.6		ug/L	50.00		105	70-130			
Benzene	8.45		ug/L	10.00		84	70-130			
Bromobenzene	10.2		ug/L	10.00		102	70-130			
Bromochloromethane	9.61		ug/L	10.00		96	70-130			
Bromodichloromethane	9.19		ug/L	10.00		92	70-130			
Bromoform	10.7		ug/L	10.00		107	70-130			
Bromomethane	7.38		ug/L	10.00		74	70-130			
Carbon Disulfide	8.02		ug/L	10.00		80	70-130			
Carbon Tetrachloride	11.0		ug/L	10.00		110	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
Chlorobenzene	10.2		ug/L	10.00		102	70-130			
Chloroethane	5.68		ug/L	10.00		57	70-130			B-
Chloroform	8.73		ug/L	10.00		87	70-130			
Chloromethane	9.90		ug/L	10.00		99	70-130			
cis-1,2-Dichloroethene	9.53		ug/L	10.00		95	70-130			
cis-1,3-Dichloropropene	8.37		ug/L	10.00		84	70-130			
Dibromochloromethane	10.0		ug/L	10.00		100	70-130			
Dibromomethane	9.74		ug/L	10.00		97	70-130			
Dichlorodifluoromethane	12.3		ug/L	10.00		123	70-130			
Diethyl Ether	7.71		ug/L	10.00		77	70-130			
Di-isopropyl ether	7.94		ug/L	10.00		79	70-130			
Ethyl tertiary-butyl ether	7.78		ug/L	10.00		78	70-130			
Ethylbenzene	9.28		ug/L	10.00		93	70-130			
Hexachlorobutadiene	11.0		ug/L	10.00		110	70-130			
Hexachloroethane	12.1		ug/L	10.00		121	70-130			
Isopropylbenzene	10.2		ug/L	10.00		102	70-130			
Methyl tert-Butyl Ether	8.50		ug/L	10.00		85	70-130			
Methylene Chloride	11.7		ug/L	10.00		117	70-130			
Naphthalene	12.0		ug/L	10.00		120	70-130			
n-Butylbenzene	10.3		ug/L	10.00		103	70-130			
n-Propylbenzene	9.43		ug/L	10.00		94	70-130			
sec-Butylbenzene	11.1		ug/L	10.00		111	70-130			
Styrene	9.93		ug/L	10.00		99	70-130			
tert-Butylbenzene	10.6		ug/L	10.00		106	70-130			
Tertiary-amyl methyl ether	8.05		ug/L	10.00		80	70-130			
Tetrachloroethene	9.47		ug/L	10.00		95	70-130			
Tetrahydrofuran	8.55		ug/L	10.00		86	70-130			
Toluene	9.31		ug/L	10.00		93	70-130			
trans-1,2-Dichloroethene	9.47		ug/L	10.00		95	70-130			
trans-1,3-Dichloropropene	8.12		ug/L	10.00		81	70-130			
Trichloroethene	10.0		ug/L	10.00		100	70-130			
Trichlorofluoromethane	9.43		ug/L	10.00		94	70-130			
Vinyl Acetate	7.39		ug/L	10.00		74	70-130			
Vinyl Chloride	10.5		ug/L	10.00		105	70-130			
Xylene O	10.1		ug/L	10.00		101	70-130			
Xylene P,M	20.3		ug/L	20.00		102	70-130			
Xylenes (Total)	30.4		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0235*		mg/L	*0.02500*		*94*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0232*		mg/L	*0.02500*		*93*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0258*		mg/L	*0.02500*		*103*	*70-130*			
Surrogate: Toluene-d8	*0.0254*		mg/L	*0.02500*		*101*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.56		ug/L	10.00		96	70-130	0.9	25	
1,1,1-Trichloroethane	9.87		ug/L	10.00		99	70-130	0	25	
1,1,2,2-Tetrachloroethane	8.07		ug/L	10.00		81	70-130	3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
1,1,2-Trichloroethane	8.24		ug/L	10.00		82	70-130	9	25	
1,1-Dichloroethane	7.56		ug/L	10.00		76	70-130	4	25	
1,1-Dichloroethene	9.37		ug/L	10.00		94	70-130	6	25	
1,1-Dichloropropene	9.15		ug/L	10.00		92	70-130	0.8	25	
1,2,3-Trichlorobenzene	10.9		ug/L	10.00		109	70-130	8	25	
1,2,3-Trichloropropane	7.33		ug/L	10.00		73	70-130	6	25	
1,2,4-Trichlorobenzene	10.6		ug/L	10.00		106	70-130	6	25	
1,2,4-Trimethylbenzene	9.68		ug/L	10.00		97	70-130	4	25	
1,2-Dibromo-3-Chloropropane	8.34		ug/L	10.00		83	70-130	5	25	
1,2-Dibromoethane	9.64		ug/L	10.00		96	70-130	6	25	
1,2-Dichlorobenzene	10.5		ug/L	10.00		105	70-130	2	25	
1,2-Dichloroethane	8.91		ug/L	10.00		89	70-130	4	25	
1,2-Dichloropropane	7.82		ug/L	10.00		78	70-130	2	25	
1,3,5-Trimethylbenzene	9.94		ug/L	10.00		99	70-130	3	25	
1,3-Dichlorobenzene	10.1		ug/L	10.00		101	70-130	5	25	
1,3-Dichloropropane	8.28		ug/L	10.00		83	70-130	1	25	
1,4-Dichlorobenzene	10.0		ug/L	10.00		100	70-130	2	25	
1,4-Dioxane - Screen	207		ug/L	200.0		103	0-332	7	200	
1-Chlorohexane	8.31		ug/L	10.00		83	70-130	2	25	
2,2-Dichloropropane	7.38		ug/L	10.00		74	70-130	3	25	
2-Butanone	39.1		ug/L	50.00		78	70-130	1	25	
2-Chlorotoluene	9.27		ug/L	10.00		93	70-130	0.8	25	
2-Hexanone	41.1		ug/L	50.00		82	70-130	11	25	
4-Chlorotoluene	9.42		ug/L	10.00		94	70-130	0.1	25	
4-Isopropyltoluene	9.43		ug/L	10.00		94	70-130	9	25	
4-Methyl-2-Pentanone	40.6		ug/L	50.00		81	70-130	6	25	
Acetone	47.8		ug/L	50.00		96	70-130	10	25	
Benzene	8.43		ug/L	10.00		84	70-130	0.2	25	
Bromobenzene	10.2		ug/L	10.00		102	70-130	0	25	
Bromochloromethane	9.38		ug/L	10.00		94	70-130	2	25	
Bromodichloromethane	9.12		ug/L	10.00		91	70-130	0.8	25	
Bromoform	10.6		ug/L	10.00		106	70-130	1	25	
Bromomethane	7.22		ug/L	10.00		72	70-130	2	25	
Carbon Disulfide	7.99		ug/L	10.00		80	70-130	0.4	25	
Carbon Tetrachloride	10.5		ug/L	10.00		105	70-130	4	25	
Chlorobenzene	10.2		ug/L	10.00		102	70-130	0.3	25	
Chloroethane	5.76		ug/L	10.00		58	70-130	1	25	B-
Chloroform	8.63		ug/L	10.00		86	70-130	1	25	
Chloromethane	9.71		ug/L	10.00		97	70-130	2	25	
cis-1,2-Dichloroethene	9.30		ug/L	10.00		93	70-130	2	25	
cis-1,3-Dichloropropene	8.23		ug/L	10.00		82	70-130	2	25	
Dibromochloromethane	9.85		ug/L	10.00		98	70-130	2	25	
Dibromomethane	9.15		ug/L	10.00		92	70-130	6	25	
Dichlorodifluoromethane	12.6		ug/L	10.00		126	70-130	2	25	
Diethyl Ether	7.28		ug/L	10.00		73	70-130	6	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
Di-isopropyl ether	7.84		ug/L	10.00		78	70-130	1	25	
Ethyl tertiary-butyl ether	7.64		ug/L	10.00		76	70-130	2	25	
Ethylbenzene	9.15		ug/L	10.00		92	70-130	1	25	
Hexachlorobutadiene	10.2		ug/L	10.00		102	70-130	7	25	
Hexachloroethane	11.4		ug/L	10.00		114	70-130	6	25	
Isopropylbenzene	9.77		ug/L	10.00		98	70-130	4	25	
Methyl tert-Butyl Ether	8.37		ug/L	10.00		84	70-130	2	25	
Methylene Chloride	11.5		ug/L	10.00		115	70-130	2	25	
Naphthalene	10.8		ug/L	10.00		108	70-130	11	25	
n-Butylbenzene	9.52		ug/L	10.00		95	70-130	8	25	
n-Propylbenzene	9.00		ug/L	10.00		90	70-130	5	25	
sec-Butylbenzene	10.4		ug/L	10.00		104	70-130	7	25	
Styrene	10.1		ug/L	10.00		101	70-130	1	25	
tert-Butylbenzene	10.0		ug/L	10.00		100	70-130	6	25	
Tertiary-amyl methyl ether	7.65		ug/L	10.00		76	70-130	5	25	
Tetrachloroethene	9.50		ug/L	10.00		95	70-130	0.3	25	
Tetrahydrofuran	8.35		ug/L	10.00		84	70-130	2	25	
Toluene	9.38		ug/L	10.00		94	70-130	0.7	25	
trans-1,2-Dichloroethene	9.38		ug/L	10.00		94	70-130	1	25	
trans-1,3-Dichloropropene	8.07		ug/L	10.00		81	70-130	0.6	25	
Trichloroethene	9.83		ug/L	10.00		98	70-130	2	25	
Trichlorofluoromethane	9.21		ug/L	10.00		92	70-130	2	25	
Vinyl Acetate	7.16		ug/L	10.00		72	70-130	3	25	
Vinyl Chloride	9.42		ug/L	10.00		94	70-130	11	25	
Xylene O	10.6		ug/L	10.00		106	70-130	5	25	
Xylene P,M	20.7		ug/L	20.00		104	70-130	2	25	
Xylenes (Total)	31.3		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0239*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0247*		mg/L	*0.02500*		*99*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0262*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Toluene-d8	*0.0252*		mg/L	*0.02500*		*101*	*70-130*			
Batch CE62430 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0241*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0242*		mg/L	*0.02500*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.0237*		mg/L	*0.02500*		*95*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.50		ug/L	10.00		95	70-130			
1,1,1-Trichloroethane	10.1		ug/L	10.00		101	70-130			
1,1,2,2-Tetrachloroethane	9.86		ug/L	10.00		99	70-130			
1,1,2-Trichloroethane	10.2		ug/L	10.00		102	70-130			
1,1-Dichloroethane	9.82		ug/L	10.00		98	70-130			
1,1-Dichloroethene	10.5		ug/L	10.00		105	70-130			
1,1-Dichloropropene	10.2		ug/L	10.00		102	70-130			
1,2,3-Trichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,2,3-Trichloropropane	9.82		ug/L	10.00		98	70-130			
1,2,4-Trichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,2,4-Trimethylbenzene	9.78		ug/L	10.00		98	70-130			
1,2-Dibromo-3-Chloropropane	9.63		ug/L	10.00		96	70-130			
1,2-Dibromoethane	10.6		ug/L	10.00		106	70-130			
1,2-Dichlorobenzene	10.3		ug/L	10.00		103	70-130			
1,2-Dichloroethane	10.4		ug/L	10.00		104	70-130			
1,2-Dichloropropane	9.79		ug/L	10.00		98	70-130			
1,3,5-Trimethylbenzene	10.8		ug/L	10.00		108	70-130			
1,3-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,3-Dichloropropane	11.1		ug/L	10.00		111	70-130			
1,4-Dichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,4-Dioxane - Screen	214		ug/L	200.0		107	0-332			
1-Chlorohexane	10.5		ug/L	10.00		105	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
2,2-Dichloropropane	9.52		ug/L	10.00		95	70-130			
2-Butanone	48.3		ug/L	50.00		97	70-130			
2-Chlorotoluene	10.4		ug/L	10.00		104	70-130			
2-Hexanone	53.0		ug/L	50.00		106	70-130			
4-Chlorotoluene	10.6		ug/L	10.00		106	70-130			
4-Isopropyltoluene	10.8		ug/L	10.00		108	70-130			
4-Methyl-2-Pentanone	50.8		ug/L	50.00		102	70-130			
Acetone	48.5		ug/L	50.00		97	70-130			
Benzene	10.0		ug/L	10.00		100	70-130			
Bromobenzene	10.2		ug/L	10.00		102	70-130			
Bromochloromethane	10.3		ug/L	10.00		103	70-130			
Bromodichloromethane	10.2		ug/L	10.00		102	70-130			
Bromoform	9.74		ug/L	10.00		97	70-130			
Bromomethane	10.5		ug/L	10.00		105	70-130			
Carbon Disulfide	9.53		ug/L	10.00		95	70-130			
Carbon Tetrachloride	9.33		ug/L	10.00		93	70-130			
Chlorobenzene	10.6		ug/L	10.00		106	70-130			
Chloroethane	8.86		ug/L	10.00		89	70-130			
Chloroform	9.75		ug/L	10.00		98	70-130			
Chloromethane	11.1		ug/L	10.00		111	70-130			
cis-1,2-Dichloroethene	10.4		ug/L	10.00		104	70-130			
cis-1,3-Dichloropropene	9.14		ug/L	10.00		91	70-130			
Dibromochloromethane	9.45		ug/L	10.00		94	70-130			
Dibromomethane	10.0		ug/L	10.00		100	70-130			
Dichlorodifluoromethane	13.4		ug/L	10.00		134	70-130			B+
Diethyl Ether	10.1		ug/L	10.00		101	70-130			
Di-isopropyl ether	9.96		ug/L	10.00		100	70-130			
Ethyl tertiary-butyl ether	11.7		ug/L	10.00		117	70-130			
Ethylbenzene	10.6		ug/L	10.00		106	70-130			
Hexachlorobutadiene	11.0		ug/L	10.00		110	70-130			
Hexachloroethane	9.31		ug/L	10.00		93	70-130			
Isopropylbenzene	10.4		ug/L	10.00		104	70-130			
Methyl tert-Butyl Ether	10.4		ug/L	10.00		104	70-130			
Methylene Chloride	10.2		ug/L	10.00		102	70-130			
Naphthalene	12.6		ug/L	10.00		126	70-130			
n-Butylbenzene	9.93		ug/L	10.00		99	70-130			
n-Propylbenzene	10.5		ug/L	10.00		105	70-130			
sec-Butylbenzene	10.9		ug/L	10.00		109	70-130			
Styrene	10.9		ug/L	10.00		109	70-130			
tert-Butylbenzene	10.6		ug/L	10.00		106	70-130			
Tertiary-amyl methyl ether	12.5		ug/L	10.00		125	70-130			
Tetrachloroethene	8.51		ug/L	10.00		85	70-130			
Tetrahydrofuran	9.73		ug/L	10.00		97	70-130			
Toluene	10.3		ug/L	10.00		103	70-130			
trans-1,2-Dichloroethene	10.6		ug/L	10.00		106	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
trans-1,3-Dichloropropene	8.60		ug/L	10.00		86	70-130			
Trichloroethene	9.94		ug/L	10.00		99	70-130			
Trichlorofluoromethane	9.96		ug/L	10.00		100	70-130			
Vinyl Acetate	10.0		ug/L	10.00		100	70-130			
Vinyl Chloride	12.3		ug/L	10.00		123	70-130			
Xylene O	10.8		ug/L	10.00		108	70-130			
Xylene P,M	22.1		ug/L	20.00		110	70-130			
Xylenes (Total)	32.9		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0270*		mg/L	*0.02500*		*108*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0263*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0282*		mg/L	*0.02500*		*113*	*70-130*			
Surrogate: Toluene-d8	*0.0274*		mg/L	*0.02500*		*110*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.36		ug/L	10.00		94	70-130	1	25	
1,1,1-Trichloroethane	9.93		ug/L	10.00		99	70-130	1	25	
1,1,2,2-Tetrachloroethane	9.51		ug/L	10.00		95	70-130	4	25	
1,1,2-Trichloroethane	9.80		ug/L	10.00		98	70-130	4	25	
1,1-Dichloroethane	9.89		ug/L	10.00		99	70-130	0.7	25	
1,1-Dichloroethene	10.6		ug/L	10.00		106	70-130	0.6	25	
1,1-Dichloropropene	10.2		ug/L	10.00		102	70-130	0.4	25	
1,2,3-Trichlorobenzene	10.3		ug/L	10.00		103	70-130	3	25	
1,2,3-Trichloropropane	9.26		ug/L	10.00		93	70-130	6	25	
1,2,4-Trichlorobenzene	10.2		ug/L	10.00		102	70-130	3	25	
1,2,4-Trimethylbenzene	9.66		ug/L	10.00		97	70-130	1	25	
1,2-Dibromo-3-Chloropropane	9.43		ug/L	10.00		94	70-130	2	25	
1,2-Dibromoethane	10.2		ug/L	10.00		102	70-130	4	25	
1,2-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	0.2	25	
1,2-Dichloroethane	10.2		ug/L	10.00		102	70-130	3	25	
1,2-Dichloropropane	9.54		ug/L	10.00		95	70-130	3	25	
1,3,5-Trimethylbenzene	10.7		ug/L	10.00		107	70-130	0.8	25	
1,3-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	0.5	25	
1,3-Dichloropropane	10.6		ug/L	10.00		106	70-130	5	25	
1,4-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	0.9	25	
1,4-Dioxane - Screen	191		ug/L	200.0		96	0-332	11	200	
1-Chlorohexane	10.2		ug/L	10.00		102	70-130	2	25	
2,2-Dichloropropane	9.60		ug/L	10.00		96	70-130	0.8	25	
2-Butanone	48.8		ug/L	50.00		98	70-130	1	25	
2-Chlorotoluene	10.2		ug/L	10.00		102	70-130	2	25	
2-Hexanone	48.9		ug/L	50.00		98	70-130	8	25	
4-Chlorotoluene	10.4		ug/L	10.00		104	70-130	1	25	
4-Isopropyltoluene	10.8		ug/L	10.00		108	70-130	0.09	25	
4-Methyl-2-Pentanone	47.6		ug/L	50.00		95	70-130	6	25	
Acetone	45.6		ug/L	50.00		91	70-130	6	25	
Benzene	9.95		ug/L	10.00		100	70-130	0.8	25	
Bromobenzene	10.0		ug/L	10.00		100	70-130	2	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
Bromochloromethane	10.1		ug/L	10.00		101	70-130	2	25	
Bromodichloromethane	10.1		ug/L	10.00		101	70-130	0.2	25	
Bromoform	9.39		ug/L	10.00		94	70-130	4	25	
Bromomethane	10.4		ug/L	10.00		104	70-130	1	25	
Carbon Disulfide	9.58		ug/L	10.00		96	70-130	0.5	25	
Carbon Tetrachloride	9.19		ug/L	10.00		92	70-130	2	25	
Chlorobenzene	10.4		ug/L	10.00		104	70-130	2	25	
Chloroethane	8.74		ug/L	10.00		87	70-130	1	25	
Chloroform	9.74		ug/L	10.00		97	70-130	0.1	25	
Chloromethane	11.4		ug/L	10.00		114	70-130	3	25	
cis-1,2-Dichloroethene	10.4		ug/L	10.00		104	70-130	0.2	25	
cis-1,3-Dichloropropene	9.18		ug/L	10.00		92	70-130	0.4	25	
Dibromochloromethane	9.14		ug/L	10.00		91	70-130	3	25	
Dibromomethane	9.65		ug/L	10.00		96	70-130	4	25	
Dichlorodifluoromethane	13.5		ug/L	10.00		135	70-130	1	25	B+
Diethyl Ether	9.78		ug/L	10.00		98	70-130	3	25	
Di-isopropyl ether	9.76		ug/L	10.00		98	70-130	2	25	
Ethyl tertiary-butyl ether	11.3		ug/L	10.00		113	70-130	3	25	
Ethylbenzene	10.2		ug/L	10.00		102	70-130	4	25	
Hexachlorobutadiene	10.7		ug/L	10.00		107	70-130	3	25	
Hexachloroethane	9.31		ug/L	10.00		93	70-130	0	25	
Isopropylbenzene	10.5		ug/L	10.00		105	70-130	0.4	25	
Methyl tert-Butyl Ether	9.98		ug/L	10.00		100	70-130	5	25	
Methylene Chloride	10.2		ug/L	10.00		102	70-130	0.1	25	
Naphthalene	11.6		ug/L	10.00		116	70-130	8	25	
n-Butylbenzene	9.80		ug/L	10.00		98	70-130	1	25	
n-Propylbenzene	10.5		ug/L	10.00		105	70-130	0.5	25	
sec-Butylbenzene	10.8		ug/L	10.00		108	70-130	0.7	25	
Styrene	10.7		ug/L	10.00		107	70-130	2	25	
tert-Butylbenzene	10.5		ug/L	10.00		105	70-130	0.7	25	
Tertiary-amyl methyl ether	12.1		ug/L	10.00		121	70-130	3	25	
Tetrachloroethene	8.37		ug/L	10.00		84	70-130	2	25	
Tetrahydrofuran	9.60		ug/L	10.00		96	70-130	1	25	
Toluene	10.3		ug/L	10.00		103	70-130	0.8	25	
trans-1,2-Dichloroethene	10.3		ug/L	10.00		103	70-130	2	25	
trans-1,3-Dichloropropene	8.28		ug/L	10.00		83	70-130	4	25	
Trichloroethene	9.92		ug/L	10.00		99	70-130	0.2	25	
Trichlorofluoromethane	9.76		ug/L	10.00		98	70-130	2	25	
Vinyl Acetate	9.70		ug/L	10.00		97	70-130	3	25	
Vinyl Chloride	12.2		ug/L	10.00		122	70-130	0.5	25	
Xylene O	10.5		ug/L	10.00		105	70-130	3	25	
Xylene P,M	21.6		ug/L	20.00		108	70-130	2	25	
Xylenes (Total)	32.1		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0267*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0261*		mg/L	*0.02500*		*104*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
Surrogate: Dibromofluoromethane	*0.0279*		mg/L	*0.02500*		*112*	*70-130*			
Surrogate: Toluene-d8	*0.0269*		mg/L	*0.02500*		*107*	*70-130*			
Batch CE62431 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	0.0004	0.0010	mg/L							J
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0236*		mg/L	*0.02500*		*95*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.0238*		mg/L	*0.02500*		*95*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.66		ug/L	10.00		97	70-130			
1,1,1-Trichloroethane	10.2		ug/L	10.00		102	70-130			
1,1,2,2-Tetrachloroethane	9.86		ug/L	10.00		99	70-130			
1,1,2-Trichloroethane	10.5		ug/L	10.00		105	70-130			
1,1-Dichloroethane	10.2		ug/L	10.00		102	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
1,1-Dichloroethene	10.7		ug/L	10.00		107	70-130			
1,1-Dichloropropene	10.4		ug/L	10.00		104	70-130			
1,2,3-Trichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,2,3-Trichloropropane	9.72		ug/L	10.00		97	70-130			
1,2,4-Trichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,2,4-Trimethylbenzene	9.82		ug/L	10.00		98	70-130			
1,2-Dibromo-3-Chloropropane	9.52		ug/L	10.00		95	70-130			
1,2-Dibromoethane	10.6		ug/L	10.00		106	70-130			
1,2-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,2-Dichloroethane	11.1		ug/L	10.00		111	70-130			
1,2-Dichloropropane	10.2		ug/L	10.00		102	70-130			
1,3,5-Trimethylbenzene	10.7		ug/L	10.00		107	70-130			
1,3-Dichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,3-Dichloropropane	11.2		ug/L	10.00		112	70-130			
1,4-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,4-Dioxane - Screen	235		ug/L	200.0		117	0-332			
1-Chlorohexane	10.1		ug/L	10.00		101	70-130			
2,2-Dichloropropane	7.76		ug/L	10.00		78	70-130			
2-Butanone	52.0		ug/L	50.00		104	70-130			
2-Chlorotoluene	10.3		ug/L	10.00		103	70-130			
2-Hexanone	57.4		ug/L	50.00		115	70-130			
4-Chlorotoluene	10.6		ug/L	10.00		106	70-130			
4-Isopropyltoluene	10.5		ug/L	10.00		105	70-130			
4-Methyl-2-Pentanone	55.5		ug/L	50.00		111	70-130			
Acetone	48.1		ug/L	50.00		96	70-130			
Benzene	10.4		ug/L	10.00		104	70-130			
Bromobenzene	10.1		ug/L	10.00		101	70-130			
Bromochloromethane	10.8		ug/L	10.00		108	70-130			
Bromodichloromethane	10.7		ug/L	10.00		107	70-130			
Bromoform	9.69		ug/L	10.00		97	70-130			
Bromomethane	6.39		ug/L	10.00		64	70-130			B-
Carbon Disulfide	9.64		ug/L	10.00		96	70-130			
Carbon Tetrachloride	9.46		ug/L	10.00		95	70-130			
Chlorobenzene	10.8		ug/L	10.00		108	70-130			
Chloroethane	8.99		ug/L	10.00		90	70-130			
Chloroform	10.3		ug/L	10.00		103	70-130			
Chloromethane	11.7		ug/L	10.00		117	70-130			
cis-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130			
cis-1,3-Dichloropropene	9.07		ug/L	10.00		91	70-130			
Dibromochloromethane	9.41		ug/L	10.00		94	70-130			
Dibromomethane	10.5		ug/L	10.00		105	70-130			
Dichlorodifluoromethane	13.4		ug/L	10.00		134	70-130			B+
Diethyl Ether	10.2		ug/L	10.00		102	70-130			
Di-isopropyl ether	10.3		ug/L	10.00		103	70-130			
Ethyl tertiary-butyl ether	11.6		ug/L	10.00		116	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
Ethylbenzene	10.4		ug/L	10.00		104	70-130			
Hexachlorobutadiene	10.6		ug/L	10.00		106	70-130			
Hexachloroethane	9.25		ug/L	10.00		92	70-130			
Isopropylbenzene	10.4		ug/L	10.00		104	70-130			
Methyl tert-Butyl Ether	10.6		ug/L	10.00		106	70-130			
Methylene Chloride	11.4		ug/L	10.00		114	70-130			
Naphthalene	11.9		ug/L	10.00		119	70-130			
n-Butylbenzene	9.68		ug/L	10.00		97	70-130			
n-Propylbenzene	10.4		ug/L	10.00		104	70-130			
sec-Butylbenzene	10.7		ug/L	10.00		107	70-130			
Styrene	11.0		ug/L	10.00		110	70-130			
tert-Butylbenzene	10.4		ug/L	10.00		104	70-130			
Tertiary-amyl methyl ether	12.3		ug/L	10.00		123	70-130			
Tetrachloroethene	8.40		ug/L	10.00		84	70-130			
Tetrahydrofuran	10.0		ug/L	10.00		100	70-130			
Toluene	10.6		ug/L	10.00		106	70-130			
trans-1,2-Dichloroethene	10.7		ug/L	10.00		107	70-130			
trans-1,3-Dichloropropene	8.52		ug/L	10.00		85	70-130			
Trichloroethene	10.3		ug/L	10.00		103	70-130			
Trichlorofluoromethane	10.3		ug/L	10.00		103	70-130			
Vinyl Acetate	9.91		ug/L	10.00		99	70-130			
Vinyl Chloride	12.6		ug/L	10.00		126	70-130			
Xylene O	10.8		ug/L	10.00		108	70-130			
Xylene P,M	21.7		ug/L	20.00		109	70-130			
Xylenes (Total)	32.5		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0285*		mg/L	*0.02500*		*114*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0264*		mg/L	*0.02500*		*106*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0288*		mg/L	*0.02500*		*115*	*70-130*			
Surrogate: Toluene-d8	*0.0270*		mg/L	*0.02500*		*108*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.65		ug/L	10.00		96	70-130	0.1	25	
1,1,1-Trichloroethane	10.3		ug/L	10.00		103	70-130	0.8	25	
1,1,2,2-Tetrachloroethane	9.85		ug/L	10.00		98	70-130	0.1	25	
1,1,2-Trichloroethane	10.6		ug/L	10.00		106	70-130	1	25	
1,1-Dichloroethane	10.4		ug/L	10.00		104	70-130	1	25	
1,1-Dichloroethene	10.9		ug/L	10.00		109	70-130	1	25	
1,1-Dichloropropene	10.5		ug/L	10.00		105	70-130	0.7	25	
1,2,3-Trichlorobenzene	10.4		ug/L	10.00		104	70-130	3	25	
1,2,3-Trichloropropane	9.66		ug/L	10.00		97	70-130	0.6	25	
1,2,4-Trichlorobenzene	10.2		ug/L	10.00		102	70-130	2	25	
1,2,4-Trimethylbenzene	9.87		ug/L	10.00		99	70-130	0.5	25	
1,2-Dibromo-3-Chloropropane	9.72		ug/L	10.00		97	70-130	2	25	
1,2-Dibromoethane	10.5		ug/L	10.00		105	70-130	0.8	25	
1,2-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	0.2	25	
1,2-Dichloroethane	10.9		ug/L	10.00		109	70-130	1	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
1,2-Dichloropropane	10.3		ug/L	10.00		103	70-130	0.5	25	
1,3,5-Trimethylbenzene	10.8		ug/L	10.00		108	70-130	1	25	
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130	0.8	25	
1,3-Dichloropropane	10.9		ug/L	10.00		109	70-130	3	25	
1,4-Dichlorobenzene	10.5		ug/L	10.00		105	70-130	1	25	
1,4-Dioxane - Screen	230		ug/L	200.0		115	0-332	2	200	
1-Chlorohexane	10.1		ug/L	10.00		101	70-130	0	25	
2,2-Dichloropropane	7.50		ug/L	10.00		75	70-130	3	25	
2-Butanone	52.4		ug/L	50.00		105	70-130	0.7	25	
2-Chlorotoluene	10.3		ug/L	10.00		103	70-130	0.7	25	
2-Hexanone	55.7		ug/L	50.00		111	70-130	3	25	
4-Chlorotoluene	10.7		ug/L	10.00		107	70-130	0.8	25	
4-Isopropyltoluene	10.6		ug/L	10.00		106	70-130	1	25	
4-Methyl-2-Pentanone	55.5		ug/L	50.00		111	70-130	0.1	25	
Acetone	47.9		ug/L	50.00		96	70-130	0.3	25	
Benzene	10.5		ug/L	10.00		105	70-130	0.7	25	
Bromobenzene	10.2		ug/L	10.00		102	70-130	0.2	25	
Bromochloromethane	10.9		ug/L	10.00		109	70-130	1	25	
Bromodichloromethane	10.7		ug/L	10.00		107	70-130	0.3	25	
Bromoform	9.60		ug/L	10.00		96	70-130	0.9	25	
Bromomethane	6.67		ug/L	10.00		67	70-130	4	25	B-
Carbon Disulfide	9.78		ug/L	10.00		98	70-130	1	25	
Carbon Tetrachloride	9.64		ug/L	10.00		96	70-130	2	25	
Chlorobenzene	10.6		ug/L	10.00		106	70-130	2	25	
Chloroethane	9.22		ug/L	10.00		92	70-130	3	25	
Chloroform	10.4		ug/L	10.00		104	70-130	1	25	
Chloromethane	12.3		ug/L	10.00		123	70-130	5	25	
cis-1,2-Dichloroethene	10.8		ug/L	10.00		108	70-130	0.3	25	
cis-1,3-Dichloropropene	9.10		ug/L	10.00		91	70-130	0.3	25	
Dibromochloromethane	9.29		ug/L	10.00		93	70-130	1	25	
Dibromomethane	10.6		ug/L	10.00		106	70-130	1	25	
Dichlorodifluoromethane	13.9		ug/L	10.00		139	70-130	3	25	B+
Diethyl Ether	10.5		ug/L	10.00		105	70-130	2	25	
Di-isopropyl ether	10.2		ug/L	10.00		102	70-130	0.7	25	
Ethyl tertiary-butyl ether	11.8		ug/L	10.00		118	70-130	2	25	
Ethylbenzene	10.4		ug/L	10.00		104	70-130	0.7	25	
Hexachlorobutadiene	10.1		ug/L	10.00		101	70-130	5	25	
Hexachloroethane	9.33		ug/L	10.00		93	70-130	0.9	25	
Isopropylbenzene	10.4		ug/L	10.00		104	70-130	0.6	25	
Methyl tert-Butyl Ether	10.6		ug/L	10.00		106	70-130	0.2	25	
Methylene Chloride	11.1		ug/L	10.00		111	70-130	2	25	
Naphthalene	11.2		ug/L	10.00		112	70-130	7	25	
n-Butylbenzene	9.53		ug/L	10.00		95	70-130	2	25	
n-Propylbenzene	10.4		ug/L	10.00		104	70-130	0.1	25	
sec-Butylbenzene	10.7		ug/L	10.00		107	70-130	0.3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
Styrene	11.0		ug/L	10.00		110	70-130	0.5	25	
tert-Butylbenzene	10.6		ug/L	10.00		106	70-130	2	25	
Tertiary-amyl methyl ether	12.5		ug/L	10.00		125	70-130	2	25	
Tetrachloroethene	8.43		ug/L	10.00		84	70-130	0.4	25	
Tetrahydrofuran	9.98		ug/L	10.00		100	70-130	0.6	25	
Toluene	10.7		ug/L	10.00		107	70-130	0.5	25	
trans-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130	1	25	
trans-1,3-Dichloropropene	8.34		ug/L	10.00		83	70-130	2	25	
Trichloroethene	10.4		ug/L	10.00		104	70-130	2	25	
Trichlorofluoromethane	10.5		ug/L	10.00		105	70-130	2	25	
Vinyl Acetate	9.81		ug/L	10.00		98	70-130	1	25	
Vinyl Chloride	13.2		ug/L	10.00		132	70-130	5	25	B+
Xylene O	10.8		ug/L	10.00		108	70-130	0.2	25	
Xylene P,M	21.6		ug/L	20.00		108	70-130	0.6	25	
Xylenes (Total)	32.4		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0283*		mg/L	*0.02500*		*113*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0260*		mg/L	*0.02500*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0290*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: Toluene-d8	*0.0268*		mg/L	*0.02500*		*107*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

Notes and Definitions

U	Analyte included in the analysis, but not detected
J	Reported between MDL and MRL
D	Diluted.
CD+	Continuing Calibration %Diff/Drift is above control limit (CD+).
CD-	Continuing Calibration %Diff/Drift is below control limit (CD-).
B+	Blank Spike recovery is above upper control limit (B+).
B-	Blank Spike recovery is below lower control limit (B-).
B	Present in Method Blank (B).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605607

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Providence, RI - GZA/CMT

Shipped/Delivered Via: Client

ESS Project ID: 1605607
Date Received: 5/20/2016
Project Due Date: 5/27/2016
Days for Project: 5 Day

1. Air bill manifest present? No
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 4.8 Iced with: Ice
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. **Were labs informed about short holds & rushes?** Yes / No / (NA)
10. Were any analyses received outside of hold time? Yes / (No)

11. Any Subcontracting needed? Yes / (No)
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? (Yes) / No
    a. Air bubbles in aqueous VOAs? (Yes)
    b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? (Yes) No
    a. If metals preserved upon receipt: Date: Time: By:
    b. Low Level VOAs brought to freezer: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? (Yes) / No JC 5/20/16
    a. Was there a need to contact the client? Yes / (No)
    Who was contacted? Date: Time: By:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	38432	Yes	No	Yes	VOA Vial - HCl	HCL	
01	38433	Yes	No	Yes	VOA Vial - HCl	HCL	
01	38434	Yes	No	Yes	VOA Vial - HCl	HCL	
02	38429	Yes	No	Yes	VOA Vial - HCl	HCL	
02	38430	Yes	No	Yes	VOA Vial - HCl	HCL	
02	38431	Yes	No	Yes	VOA Vial - HCl	HCL	
03	38426	Yes	No	Yes	VOA Vial - HCl	HCL	
03	38427	Yes	No	Yes	VOA Vial - HCl	HCL	
03	38428	Yes	No	Yes	VOA Vial - HCl	HCL	
04	38423	Yes	No	Yes	VOA Vial - HCl	HCL	
04	38424	Yes	No	Yes	VOA Vial - HCl	HCL	
04	38425	Yes	No	Yes	VOA Vial - HCl	HCL	
05	38420	Yes	No	Yes	VOA Vial - HCl	HCL	
05	38421	Yes	No	Yes	VOA Vial - HCl	HCL	
05	38422	Yes	No	Yes	VOA Vial - HCl	HCL	
06	38417	Yes	No	Yes	VOA Vial - HCl	HCL	
06	38418	Yes	No	Yes	VOA Vial - HCl	HCL	
06	38419	Yes	No	Yes	VOA Vial - HCl	HCL	
07	38414	Yes	No	Yes	VOA Vial - HCl	HCL	
07	38415	Yes	No	Yes	VOA Vial - HCl	HCL	
07	38416	Yes	No	Yes	VOA Vial - HCl	HCL	
08	38411	Yes	No	Yes	VOA Vial - HCl	HCL	
08	38412	Yes	No	Yes	VOA Vial - HCl	HCL	

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Providence, RI - GZA/CMT

ESS Project ID: 1605607

Date Received: 5/20/2016

08	38413	Yes	No	Yes	VOA Vial - HCl	HCL
09	38408	Yes	No	Yes	VOA Vial - HCl	HCL
09	38409	Yes	No	Yes	VOA Vial - HCl	HCL
09	38410	Yes	Yes	Yes	VOA Vial - HCl	HCL
10	38405	Yes	No	Yes	VOA Vial - HCl	HCL
10	38406	Yes	No	Yes	VOA Vial - HCl	HCL
10	38407	Yes	No	Yes	VOA Vial - HCl	HCL
11	38402	Yes	No	Yes	VOA Vial - HCl	HCL
11	38403	Yes	No	Yes	VOA Vial - HCl	HCL
11	38404	Yes	No	Yes	VOA Vial - HCl	HCL
12	38399	Yes	No	Yes	VOA Vial - HCl	HCL
12	38400	Yes	No	Yes	VOA Vial - HCl	HCL
12	38401	Yes	No	Yes	VOA Vial - HCl	HCL
13	38396	Yes	No	Yes	VOA Vial - HCl	HCL
13	38397	Yes	No	Yes	VOA Vial - HCl	HCL
13	38398	Yes	No	Yes	VOA Vial - HCl	HCL
14	38435	Yes	No	Yes	VOA Vial - HCl	HCL

2nd Review

Are barcode labels on correct containers? (Yes) No

Completed By: _____ Date & Time: 5/20/16 1859

Reviewed By: _____ Date & Time: 5/20/16 2115

Delivered By: _____ 5/20/16 2115

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 16051007

Turn Time X Standard Other_____

Regulatory State: MA (RI) CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - GB

Electonic Deliverables Excel Access PDF

Co. Name: GZA	Project #: 33554.00	Project Name: 642 ALLENS AVE	
Contact Person: Meg Kilpatrick	Address: 530 Broadway		
City: Providence	State: RI	Zip: 02909	PO #
Tel. 401 421 4140	Fax	email: meg.kilpatrick@gza.com	

Analysis: VOC

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container
1	5/12/16	7:58	G	GW	VHB-6	2	3	V	40mL
2		9:31			VHB-3				
3		8:00			BD051216				
4		8:49			RCA-3				
5		12:49			VHB-10				

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present X Yes ____No

Seals Intact ____ Yes ____No NA: X

Cooler Temperature: 4.8 @ 520.16

Internal Use Only

[ ] Pickup

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : Sam Haupt / Matt Muto / Sophia Narkiewicz

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
5/13/16 16:49	5/20/16 16:49		
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1605607

Turn Time ____ (Standard) Other____

Regulatory State: MA (RI) CT NH NJ NY ME Other____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other____

Reporting Limits - GB

Electonic Deliverables Excel Access PDF

Co. Name GZA	Project # 33554	Project Name 642 Allens Ave.	
Contact Person Meg Kilpatrick	Address 530 Broadway		
City Providence	State RI	Zip 02908	PO #
Tel. 401-421-4140	Fax.	email: MKilpatrick@gza.com	

Analysis: VOC 8260B

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container
6	5/19/16	10:15 AM	G	GW	VHB-13	2	3	V	40
7	5/19/16	11:15	G	GW	RCA-36	2	3	V	
8	5/19/16	8:00 AM	G	GW	BD-051916	2	3	V	
9	5/19/16	12:20	G	GW	RCA-28	2	3	V	
10	5/19/16	13:06	G	GW	RCA-22	2	3	V	
11	5/19/16	12:09	G	GW	GZ-314D	2	3	V	
12	5/19/16	13:15	G	GW	RCA-38	2	3	V	
13	5/19/16	11:45	G	GW	GZ-319S	2	3	V	
14	5/19/16	8:00			Tripblank	2	1	V	

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present X Yes ____No

Seals Intact ____ Yes ____No NA: X

Cooler Temperature: 4.0 (05/20/16) ICE

Internal Use Only

[ ] Pickup (DO)

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-____

Sampled by: Sam Haupt / Matt Muto / Sophia Narkiewicz

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
5/19/16 16:49	5/20/16 1649		
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the labcratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Meg Kilpatrick
GZA GeoEnvironmental, Inc.
530 Broadway
Providence, RI 02909

RE: 642 Allens Ave (03.0033554.00)
ESS Laboratory Work Order Number: 1605608

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 3:18 pm, May 31, 2016

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

SAMPLE RECEIPT

The following samples were received on May 20, 2016 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1605608-01	GZ-301D	Ground Water	8260B
1605608-02	RCA-12R	Ground Water	8260B
1605608-03	GZ-304D	Ground Water	8260B
1605608-04	RCA-1	Ground Water	8260B
1605608-05	GZ-309D	Ground Water	8260B
1605608-06	VHB-1	Ground Water	8260B
1605608-07	VHB-8R	Ground Water	8260B
1605608-08	RCA-11	Ground Water	8260B
1605608-09	VHB-7	Ground Water	8260B
1605608-10	VHB-21	Ground Water	8260B

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

PROJECT NARRATIVE

8260B Volatile Organic Compounds

1605608-05	**Present in Method Blank (B).**
	Naphthalene
CE62342-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Chloroethane (57% @ 70-130%)
CE62342-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Chloroethane (58% @ 70-130%)
CE62430-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (134% @ 70-130%)
CE62430-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (135% @ 70-130%)
CE62431-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (134% @ 70-130%)
CE62431-BS1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (64% @ 70-130%)
CE62431-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (139% @ 70-130%), Vinyl Chloride (132% @ 70-130%)
CE62431-BSD1	**Blank Spike recovery is below lower control limit (B-).**
	Bromomethane (67% @ 70-130%)
CE62637-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (163% @ 70-130%), Vinyl Chloride (131% @ 70-130%)
CE62637-BSD1	**Blank Spike recovery is above upper control limit (B+).**
	Dichlorodifluoromethane (158% @ 70-130%)
CZE0400-CCV1	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	Bromomethane (40% @ 30%)
CZE0423-CCV1	**Continuing Calibration %Diff/Drift is below control limit (CD-).**
	Bromomethane (43% @ 30%)
CZE0467-CCV1	**Continuing Calibration %Diff/Drift is above control limit (CD+).**
	Ethyl tertiary-butyl ether (34% @ 30%), Tertiary-amyl methyl ether (46% @ 30%)

No other observations noted.

End of Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-301D
Date Sampled: 05/20/16 11:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 4:38	CZE0400	CE62342
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 4:38	CZE0400	CE62342
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 4:38	CZE0400	CE62342
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 4:38	CZE0400	CE62342
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 4:38	CZE0400	CE62342
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 4:38	CZE0400	CE62342
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 4:38	CZE0400	CE62342
Benzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-301D
Date Sampled: 05/20/16 11:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 4:38	CZE0400	CE62342
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 4:38	CZE0400	CE62342
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 4:38	CZE0400	CE62342
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
cis-1,2-Dichloroethene	**J 0.0003** (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 4:38	CZE0400	CE62342
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 4:38	CZE0400	CE62342
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 4:38	CZE0400	CE62342
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 4:38	CZE0400	CE62342
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Naphthalene	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Styrene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-301D
Date Sampled: 05/20/16 11:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 4:38	CZE0400	CE62342
Toluene	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 4:38	CZE0400	CE62342
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 4:38	CZE0400	CE62342
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 4:38	CZE0400	CE62342
Vinyl Chloride	**J 0.0007** (0.0010)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Xylene O	ND (0.0010)	0.0001	8260B		1	05/24/16 4:38	CZE0400	CE62342
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/24/16 4:38	CZE0400	CE62342
Xylenes (Total)	ND (0.0020)		8260B		1	05/24/16 4:38		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*92 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*104 %*		*70-130*
Surrogate: Toluene-d8	*104 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 05/20/16 11:35
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 5:04	CZE0400	CE62342
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 5:04	CZE0400	CE62342
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:04	CZE0400	CE62342
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 5:04	CZE0400	CE62342
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 5:04	CZE0400	CE62342
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 5:04	CZE0400	CE62342
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 5:04	CZE0400	CE62342
Benzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 05/20/16 11:35
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:04	CZE0400	CE62342
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 5:04	CZE0400	CE62342
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 5:04	CZE0400	CE62342
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
cis-1,2-Dichloroethene	**0.0099** (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:04	CZE0400	CE62342
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 5:04	CZE0400	CE62342
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 5:04	CZE0400	CE62342
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 5:04	CZE0400	CE62342
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Naphthalene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Styrene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Tetrachloroethene	**0.0011** (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 05/20/16 11:35
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 5:04	CZE0400	CE62342
Toluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 5:04	CZE0400	CE62342
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Trichloroethene	**0.0063** (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 5:04	CZE0400	CE62342
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 5:04	CZE0400	CE62342
Vinyl Chloride	**0.0022** (0.0010)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Xylene O	ND (0.0010)	0.0001	8260B		1	05/24/16 5:04	CZE0400	CE62342
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/24/16 5:04	CZE0400	CE62342
Xylenes (Total)	ND (0.0020)		8260B		1	05/24/16 5:04		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*91 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*101 %*		*70-130*
Surrogate: Toluene-d8	*104 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 05/20/16 10:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,1-Dichloroethane	**J 0.0003** (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 5:30	CZE0400	CE62342
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 5:30	CZE0400	CE62342
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:30	CZE0400	CE62342
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 5:30	CZE0400	CE62342
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 5:30	CZE0400	CE62342
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 5:30	CZE0400	CE62342
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 5:30	CZE0400	CE62342
Benzene	**0.0020** (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 05/20/16 10:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:30	CZE0400	CE62342
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 5:30	CZE0400	CE62342
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 5:30	CZE0400	CE62342
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
cis-1,2-Dichloroethene	**0.0148** (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:30	CZE0400	CE62342
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 5:30	CZE0400	CE62342
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 5:30	CZE0400	CE62342
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Methyl tert-Butyl Ether	**J 0.0006** (0.0010)	0.0003	8260B		1	05/24/16 5:30	CZE0400	CE62342
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Naphthalene	**J 0.0005** (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Styrene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 05/20/16 10:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-03
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 5:30	CZE0400	CE62342
Toluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 5:30	CZE0400	CE62342
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 5:30	CZE0400	CE62342
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 5:30	CZE0400	CE62342
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Xylene O	ND (0.0010)	0.0001	8260B		1	05/24/16 5:30	CZE0400	CE62342
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/24/16 5:30	CZE0400	CE62342
Xylenes (Total)	ND (0.0020)		8260B		1	05/24/16 5:30		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*92 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*94 %*		*70-130*
Surrogate: Dibromofluoromethane	*104 %*		*70-130*
Surrogate: Toluene-d8	*102 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 05/20/16 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,1-Dichloroethane	**J 0.0003** (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 5:57	CZE0400	CE62342
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 5:57	CZE0400	CE62342
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:57	CZE0400	CE62342
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 5:57	CZE0400	CE62342
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 5:57	CZE0400	CE62342
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 5:57	CZE0400	CE62342
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 5:57	CZE0400	CE62342
Benzene	**0.0016** (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 05/20/16 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:57	CZE0400	CE62342
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 5:57	CZE0400	CE62342
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 5:57	CZE0400	CE62342
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
cis-1,2-Dichloroethene	**0.0042** (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 5:57	CZE0400	CE62342
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 5:57	CZE0400	CE62342
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 5:57	CZE0400	CE62342
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Methyl tert-Butyl Ether	**J 0.0006** (0.0010)	0.0003	8260B		1	05/24/16 5:57	CZE0400	CE62342
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Naphthalene	**0.0052** (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Styrene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 05/20/16 10:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-04
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 5:57	CZE0400	CE62342
Toluene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 5:57	CZE0400	CE62342
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 5:57	CZE0400	CE62342
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 5:57	CZE0400	CE62342
Vinyl Chloride	**0.0067** (0.0010)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Xylene O	ND (0.0010)	0.0001	8260B		1	05/24/16 5:57	CZE0400	CE62342
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/24/16 5:57	CZE0400	CE62342
Xylenes (Total)	ND (0.0020)		8260B		1	05/24/16 5:57		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*104 %*		*70-130*
Surrogate: Toluene-d8	*102 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-309D
Date Sampled: 05/20/16 08:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,2,4-Trimethylbenzene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,3,5-Trimethylbenzene	**J 0.0001** (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/27/16 12:07	CZE0481	CE62637
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/27/16 12:07	CZE0481	CE62637
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/27/16 12:07	CZE0481	CE62637
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/27/16 12:07	CZE0481	CE62637
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/27/16 12:07	CZE0481	CE62637
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/27/16 12:07	CZE0481	CE62637
Acetone	ND (0.0100)	0.0027	8260B		1	05/27/16 12:07	CZE0481	CE62637
Benzene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-309D
Date Sampled: 05/20/16 08:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/27/16 12:07	CZE0481	CE62637
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Bromoform	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/27/16 12:07	CZE0481	CE62637
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/27/16 12:07	CZE0481	CE62637
Chloroform	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/27/16 12:07	CZE0481	CE62637
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/27/16 12:07	CZE0481	CE62637
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/27/16 12:07	CZE0481	CE62637
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Isopropylbenzene	**0.0112** (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/27/16 12:07	CZE0481	CE62637
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Naphthalene	**B, J 0.0009** (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
n-Propylbenzene	**0.0028** (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
sec-Butylbenzene	**0.0033** (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Styrene	ND (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
tert-Butylbenzene	**J 0.0007** (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-309D
Date Sampled: 05/20/16 08:50
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-05
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/27/16 12:07	CZE0481	CE62637
Toluene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/27/16 12:07	CZE0481	CE62637
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/27/16 12:07	CZE0481	CE62637
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/27/16 12:07	CZE0481	CE62637
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Xylene O	**J 0.0008** (0.0010)	0.0001	8260B		1	05/27/16 12:07	CZE0481	CE62637
Xylene P,M	**J 0.0004** (0.0020)	0.0002	8260B		1	05/27/16 12:07	CZE0481	CE62637
Xylenes (Total)	ND (0.0020)		8260B		1	05/27/16 12:07		[CALC]

	%Recovery	*Qualifier*	*Limits*
Surrogate: 1,2-Dichloroethane-d4	*123 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*112 %*		*70-130*
Surrogate: Dibromofluoromethane	*114 %*		*70-130*
Surrogate: Toluene-d8	*107 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-1
Date Sampled: 05/20/16 08:35
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,2,4-Trimethylbenzene	**0.0579** (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,3,5-Trimethylbenzene	**0.0161** (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 12:12	CZE0400	CE62342
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 12:12	CZE0400	CE62342
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 12:12	CZE0400	CE62342
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 12:12	CZE0400	CE62342
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 12:12	CZE0400	CE62342
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
4-Isopropyltoluene	**J 0.0005** (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 12:12	CZE0400	CE62342
Acetone	**J 0.0031** (0.0100)	0.0027	8260B		1	05/24/16 12:12	CZE0400	CE62342
Benzene	**0.0085** (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-1
Date Sampled: 05/20/16 08:35
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 12:12	CZE0400	CE62342
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 12:12	CZE0400	CE62342
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 12:12	CZE0400	CE62342
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 12:12	CZE0400	CE62342
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 12:12	CZE0400	CE62342
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 12:12	CZE0400	CE62342
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
Ethylbenzene	**0.118** (0.0500)	0.0050	8260B		50	05/25/16 4:58	CZE0400	CE62342
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Isopropylbenzene	**0.0063** (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 12:12	CZE0400	CE62342
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Naphthalene	**2.23** (0.0500)	0.0100	8260B		50	05/25/16 4:58	CZE0400	CE62342
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
n-Propylbenzene	**0.0016** (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
sec-Butylbenzene	**J 0.0004** (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
Styrene	**0.0032** (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-1
Date Sampled: 05/20/16 08:35
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-06
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 12:12	CZE0400	CE62342
Toluene	**0.0108** (0.0010)	0.0001	8260B		1	05/24/16 12:12	CZE0400	CE62342
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 12:12	CZE0400	CE62342
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 12:12	CZE0400	CE62342
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 12:12	CZE0400	CE62342
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Xylene O	**0.113** (0.0500)	0.0050	8260B		50	05/25/16 4:58	CZE0400	CE62342
Xylene P,M	**0.132** (0.0020)	0.0002	8260B		1	05/24/16 12:12	CZE0400	CE62342
Xylenes (Total)	**0.245** (0.0500)		8260B		50	05/25/16 4:58		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*78 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*99 %*		*70-130*
Surrogate: Dibromofluoromethane	*91 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-8R
Date Sampled: 05/20/16 12:12
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 6:23	CZE0400	CE62342
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 6:23	CZE0400	CE62342
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 6:23	CZE0400	CE62342
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 6:23	CZE0400	CE62342
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 6:23	CZE0400	CE62342
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 6:23	CZE0400	CE62342
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 6:23	CZE0400	CE62342
Benzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-8R
Date Sampled: 05/20/16 12:12
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 6:23	CZE0400	CE62342
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 6:23	CZE0400	CE62342
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 6:23	CZE0400	CE62342
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 6:23	CZE0400	CE62342
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 6:23	CZE0400	CE62342
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 6:23	CZE0400	CE62342
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 6:23	CZE0400	CE62342
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Naphthalene	**J 0.0003** (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Styrene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-8R
Date Sampled: 05/20/16 12:12
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-07
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 6:23	CZE0400	CE62342
Toluene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 6:23	CZE0400	CE62342
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 6:23	CZE0400	CE62342
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 6:23	CZE0400	CE62342
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Xylene O	ND (0.0010)	0.0001	8260B		1	05/24/16 6:23	CZE0400	CE62342
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/24/16 6:23	CZE0400	CE62342
Xylenes (Total)	ND (0.0020)		8260B		1	05/24/16 6:23		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*91 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*101 %*		*70-130*
Surrogate: Toluene-d8	*103 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-11
Date Sampled: 05/20/16 11:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,2,4-Trimethylbenzene	**J 0.0004** (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 6:49	CZE0400	CE62342
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 6:49	CZE0400	CE62342
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 6:49	CZE0400	CE62342
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 6:49	CZE0400	CE62342
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 6:49	CZE0400	CE62342
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 6:49	CZE0400	CE62342
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 6:49	CZE0400	CE62342
Benzene	**0.0010** (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-11
Date Sampled: 05/20/16 11:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 6:49	CZE0400	CE62342
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 6:49	CZE0400	CE62342
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 6:49	CZE0400	CE62342
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 6:49	CZE0400	CE62342
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 6:49	CZE0400	CE62342
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 6:49	CZE0400	CE62342
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Ethylbenzene	**J 0.0001** (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 6:49	CZE0400	CE62342
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Naphthalene	**0.0093** (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Styrene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-11
Date Sampled: 05/20/16 11:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-08
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 6:49	CZE0400	CE62342
Toluene	**J 0.0003** (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 6:49	CZE0400	CE62342
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 6:49	CZE0400	CE62342
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 6:49	CZE0400	CE62342
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Xylene O	**J 0.0002** (0.0010)	0.0001	8260B		1	05/24/16 6:49	CZE0400	CE62342
Xylene P,M	**J 0.0003** (0.0020)	0.0002	8260B		1	05/24/16 6:49	CZE0400	CE62342
Xylenes (Total)	ND (0.0020)		8260B		1	05/24/16 6:49		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*93 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*93 %*		*70-130*
Surrogate: Dibromofluoromethane	*104 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-7
Date Sampled: 05/20/16 11:06
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,2,4-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,3,5-Trimethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/24/16 18:01	CZE0422	CE62430
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/24/16 18:01	CZE0422	CE62430
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:01	CZE0422	CE62430
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/24/16 18:01	CZE0422	CE62430
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/24/16 18:01	CZE0422	CE62430
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
4-Isopropyltoluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/24/16 18:01	CZE0422	CE62430
Acetone	ND (0.0100)	0.0027	8260B		1	05/24/16 18:01	CZE0422	CE62430
Benzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-7
Date Sampled: 05/20/16 11:06
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:01	CZE0422	CE62430
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Bromoform	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/24/16 18:01	CZE0422	CE62430
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Chlorobenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/24/16 18:01	CZE0422	CE62430
Chloroform	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/24/16 18:01	CZE0422	CE62430
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/24/16 18:01	CZE0422	CE62430
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 18:01	CZE0422	CE62430
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Ethylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Isopropylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/24/16 18:01	CZE0422	CE62430
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Naphthalene	**J 0.0003** (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
n-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
n-Propylbenzene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
sec-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Styrene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-7
Date Sampled: 05/20/16 11:06
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-09
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/24/16 18:01	CZE0422	CE62430
Toluene	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/24/16 18:01	CZE0422	CE62430
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/24/16 18:01	CZE0422	CE62430
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/24/16 18:01	CZE0422	CE62430
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Xylene O	ND (0.0010)	0.0001	8260B		1	05/24/16 18:01	CZE0422	CE62430
Xylene P,M	ND (0.0020)	0.0002	8260B		1	05/24/16 18:01	CZE0422	CE62430
Xylenes (Total)	ND (0.0020)		8260B		1	05/24/16 18:01		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*100 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*97 %*		*70-130*
Surrogate: Dibromofluoromethane	*99 %*		*70-130*
Surrogate: Toluene-d8	*95 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-21
Date Sampled: 05/20/16 10:29
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,1,1-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,1,2,2-Tetrachloroethane	ND (0.0005)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,1,2-Trichloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,1-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,1-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,1-Dichloropropene	ND (0.0020)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,2,3-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,2,3-Trichloropropane	ND (0.0010)	0.0003	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,2,4-Trichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,2,4-Trimethylbenzene	**0.320** (0.0500)	0.0050	8260B		50	05/26/16 18:22	CZE0423	CE62431
1,2-Dibromo-3-Chloropropane	ND (0.0050)	0.0010	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,2-Dibromoethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,2-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,2-Dichloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,2-Dichloropropane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,3,5-Trimethylbenzene	**0.0900** (0.0500)	0.0050	8260B		50	05/26/16 18:22	CZE0423	CE62431
1,3-Dichlorobenzene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,3-Dichloropropane	ND (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,4-Dichlorobenzene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
1,4-Dioxane - Screen	ND (0.500)	0.190	8260B		1	05/25/16 13:01	CZE0423	CE62431
1-Chlorohexane	ND (0.0010)	0.0004	8260B		1	05/25/16 13:01	CZE0423	CE62431
2,2-Dichloropropane	ND (0.0010)	0.0003	8260B		1	05/25/16 13:01	CZE0423	CE62431
2-Butanone	ND (0.0100)	0.0034	8260B		1	05/25/16 13:01	CZE0423	CE62431
2-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
2-Hexanone	ND (0.0100)	0.0015	8260B		1	05/25/16 13:01	CZE0423	CE62431
4-Chlorotoluene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
4-Isopropyltoluene	**0.0024** (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
4-Methyl-2-Pentanone	ND (0.0250)	0.0016	8260B		1	05/25/16 13:01	CZE0423	CE62431
Acetone	ND (0.0100)	0.0027	8260B		1	05/25/16 13:01	CZE0423	CE62431
Benzene	**0.148** (0.0500)	0.0050	8260B		50	05/26/16 18:22	CZE0423	CE62431
Bromobenzene	ND (0.0020)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-21
Date Sampled: 05/20/16 10:29
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	0.0003	8260B		1	05/25/16 13:01	CZE0423	CE62431
Bromodichloromethane	ND (0.0006)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
Bromoform	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Bromomethane	ND (0.0020)	0.0004	8260B		1	05/25/16 13:01	CZE0423	CE62431
Carbon Disulfide	ND (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
Carbon Tetrachloride	ND (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
Chlorobenzene	**J 0.0002** (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
Chloroethane	ND (0.0020)	0.0004	8260B		1	05/25/16 13:01	CZE0423	CE62431
Chloroform	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Chloromethane	ND (0.0020)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
cis-1,2-Dichloroethene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
cis-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Dibromochloromethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Dibromomethane	ND (0.0010)	0.0003	8260B		1	05/25/16 13:01	CZE0423	CE62431
Dichlorodifluoromethane	ND (0.0020)	0.0003	8260B		1	05/25/16 13:01	CZE0423	CE62431
Diethyl Ether	ND (0.0010)	0.0003	8260B		1	05/25/16 13:01	CZE0423	CE62431
Di-isopropyl ether	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Ethyl tertiary-butyl ether	ND (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
Ethylbenzene	**1.21** (0.0500)	0.0050	8260B		50	05/26/16 18:22	CZE0423	CE62431
Hexachlorobutadiene	ND (0.0006)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Hexachloroethane	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Isopropylbenzene	**0.0201** (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
Methyl tert-Butyl Ether	ND (0.0010)	0.0003	8260B		1	05/25/16 13:01	CZE0423	CE62431
Methylene Chloride	ND (0.0020)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Naphthalene	**12.1** (0.500)	0.100	8260B		500	05/27/16 13:23	CZE0423	CE62431
n-Butylbenzene	**0.0026** (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
n-Propylbenzene	**0.0055** (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
sec-Butylbenzene	**J 0.0006** (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
Styrene	**0.0298** (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
tert-Butylbenzene	ND (0.0010)	0.0001	8260B		1	05/25/16 13:01	CZE0423	CE62431
Tertiary-amyl methyl ether	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Tetrachloroethene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB-21
Date Sampled: 05/20/16 10:29
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1605608
ESS Laboratory Sample ID: 1605608-10
Sample Matrix: Ground Water
Units: mg/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)	0.0016	8260B		1	05/25/16 13:01	CZE0423	CE62431
Toluene	**0.226** (0.0500)	0.0050	8260B		50	05/26/16 18:22	CZE0423	CE62431
trans-1,2-Dichloroethene	ND (0.0010)	0.0003	8260B		1	05/25/16 13:01	CZE0423	CE62431
trans-1,3-Dichloropropene	ND (0.0004)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Trichloroethene	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Trichlorofluoromethane	ND (0.0010)	0.0004	8260B		1	05/25/16 13:01	CZE0423	CE62431
Vinyl Acetate	ND (0.0050)	0.0005	8260B		1	05/25/16 13:01	CZE0423	CE62431
Vinyl Chloride	ND (0.0010)	0.0002	8260B		1	05/25/16 13:01	CZE0423	CE62431
Xylene O	**0.655** (0.0500)	0.0050	8260B		50	05/26/16 18:22	CZE0423	CE62431
Xylene P,M	**1.25** (0.100)	0.0100	8260B		50	05/26/16 18:22	CZE0423	CE62431
Xylenes (Total)	**1.91** (0.100)		8260B		50	05/26/16 18:22		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*85 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*103 %*		*70-130*
Surrogate: Dibromofluoromethane	*89 %*		*70-130*
Surrogate: Toluene-d8	*96 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0224*		mg/L	*0.02500*		*89*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0239*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0248*		mg/L	*0.02500*		*99*	*70-130*			
Surrogate: Toluene-d8	*0.0254*		mg/L	*0.02500*		*102*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.65		ug/L	10.00		96	70-130			
1,1,1-Trichloroethane	9.87		ug/L	10.00		99	70-130			
1,1,2,2-Tetrachloroethane	8.35		ug/L	10.00		84	70-130			
1,1,2-Trichloroethane	9.03		ug/L	10.00		90	70-130			
1,1-Dichloroethane	7.86		ug/L	10.00		79	70-130			
1,1-Dichloroethene	9.97		ug/L	10.00		100	70-130			
1,1-Dichloropropene	9.22		ug/L	10.00		92	70-130			
1,2,3-Trichlorobenzene	11.7		ug/L	10.00		117	70-130			
1,2,3-Trichloropropane	7.79		ug/L	10.00		78	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
1,2,4-Trichlorobenzene	11.3		ug/L	10.00		113	70-130			
1,2,4-Trimethylbenzene	10.1		ug/L	10.00		101	70-130			
1,2-Dibromo-3-Chloropropane	8.77		ug/L	10.00		88	70-130			
1,2-Dibromoethane	10.2		ug/L	10.00		102	70-130			
1,2-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,2-Dichloroethane	9.23		ug/L	10.00		92	70-130			
1,2-Dichloropropane	7.99		ug/L	10.00		80	70-130			
1,3,5-Trimethylbenzene	10.3		ug/L	10.00		103	70-130			
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,3-Dichloropropane	8.37		ug/L	10.00		84	70-130			
1,4-Dichlorobenzene	10.3		ug/L	10.00		103	70-130			
1,4-Dioxane - Screen	222		ug/L	200.0		111	0-332			
1-Chlorohexane	8.48		ug/L	10.00		85	70-130			
2,2-Dichloropropane	7.61		ug/L	10.00		76	70-130			
2-Butanone	38.7		ug/L	50.00		77	70-130			
2-Chlorotoluene	9.34		ug/L	10.00		93	70-130			
2-Hexanone	45.9		ug/L	50.00		92	70-130			
4-Chlorotoluene	9.41		ug/L	10.00		94	70-130			
4-Isopropyltoluene	10.3		ug/L	10.00		103	70-130			
4-Methyl-2-Pentanone	43.3		ug/L	50.00		87	70-130			
Acetone	52.6		ug/L	50.00		105	70-130			
Benzene	8.45		ug/L	10.00		84	70-130			
Bromobenzene	10.2		ug/L	10.00		102	70-130			
Bromochloromethane	9.61		ug/L	10.00		96	70-130			
Bromodichloromethane	9.19		ug/L	10.00		92	70-130			
Bromoform	10.7		ug/L	10.00		107	70-130			
Bromomethane	7.38		ug/L	10.00		74	70-130			
Carbon Disulfide	8.02		ug/L	10.00		80	70-130			
Carbon Tetrachloride	11.0		ug/L	10.00		110	70-130			
Chlorobenzene	10.2		ug/L	10.00		102	70-130			
Chloroethane	5.68		ug/L	10.00		57	70-130			B-
Chloroform	8.73		ug/L	10.00		87	70-130			
Chloromethane	9.90		ug/L	10.00		99	70-130			
cis-1,2-Dichloroethene	9.53		ug/L	10.00		95	70-130			
cis-1,3-Dichloropropene	8.37		ug/L	10.00		84	70-130			
Dibromochloromethane	10.0		ug/L	10.00		100	70-130			
Dibromomethane	9.74		ug/L	10.00		97	70-130			
Dichlorodifluoromethane	12.3		ug/L	10.00		123	70-130			
Diethyl Ether	7.71		ug/L	10.00		77	70-130			
Di-isopropyl ether	7.94		ug/L	10.00		79	70-130			
Ethyl tertiary-butyl ether	7.78		ug/L	10.00		78	70-130			
Ethylbenzene	9.28		ug/L	10.00		93	70-130			
Hexachlorobutadiene	11.0		ug/L	10.00		110	70-130			
Hexachloroethane	12.1		ug/L	10.00		121	70-130			
Isopropylbenzene	10.2		ug/L	10.00		102	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
Methyl tert-Butyl Ether	8.50		ug/L	10.00		85	70-130			
Methylene Chloride	11.7		ug/L	10.00		117	70-130			
Naphthalene	12.0		ug/L	10.00		120	70-130			
n-Butylbenzene	10.3		ug/L	10.00		103	70-130			
n-Propylbenzene	9.43		ug/L	10.00		94	70-130			
sec-Butylbenzene	11.1		ug/L	10.00		111	70-130			
Styrene	9.93		ug/L	10.00		99	70-130			
tert-Butylbenzene	10.6		ug/L	10.00		106	70-130			
Tertiary-amyl methyl ether	8.05		ug/L	10.00		80	70-130			
Tetrachloroethene	9.47		ug/L	10.00		95	70-130			
Tetrahydrofuran	8.55		ug/L	10.00		86	70-130			
Toluene	9.31		ug/L	10.00		93	70-130			
trans-1,2-Dichloroethene	9.47		ug/L	10.00		95	70-130			
trans-1,3-Dichloropropene	8.12		ug/L	10.00		81	70-130			
Trichloroethene	10.0		ug/L	10.00		100	70-130			
Trichlorofluoromethane	9.43		ug/L	10.00		94	70-130			
Vinyl Acetate	7.39		ug/L	10.00		74	70-130			
Vinyl Chloride	10.5		ug/L	10.00		105	70-130			
Xylene O	10.1		ug/L	10.00		101	70-130			
Xylene P,M	20.3		ug/L	20.00		102	70-130			
Xylenes (Total)	30.4		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0235*		mg/L	*0.02500*		*94*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0232*		mg/L	*0.02500*		*93*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0258*		mg/L	*0.02500*		*103*	*70-130*			
Surrogate: Toluene-d8	*0.0254*		mg/L	*0.02500*		*101*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.56		ug/L	10.00		96	70-130	0.9	25	
1,1,1-Trichloroethane	9.87		ug/L	10.00		99	70-130	0	25	
1,1,2,2-Tetrachloroethane	8.07		ug/L	10.00		81	70-130	3	25	
1,1,2-Trichloroethane	8.24		ug/L	10.00		82	70-130	9	25	
1,1-Dichloroethane	7.56		ug/L	10.00		76	70-130	4	25	
1,1-Dichloroethene	9.37		ug/L	10.00		94	70-130	6	25	
1,1-Dichloropropene	9.15		ug/L	10.00		92	70-130	0.8	25	
1,2,3-Trichlorobenzene	10.9		ug/L	10.00		109	70-130	8	25	
1,2,3-Trichloropropane	7.33		ug/L	10.00		73	70-130	6	25	
1,2,4-Trichlorobenzene	10.6		ug/L	10.00		106	70-130	6	25	
1,2,4-Trimethylbenzene	9.68		ug/L	10.00		97	70-130	4	25	
1,2-Dibromo-3-Chloropropane	8.34		ug/L	10.00		83	70-130	5	25	
1,2-Dibromoethane	9.64		ug/L	10.00		96	70-130	6	25	
1,2-Dichlorobenzene	10.5		ug/L	10.00		105	70-130	2	25	
1,2-Dichloroethane	8.91		ug/L	10.00		89	70-130	4	25	
1,2-Dichloropropane	7.82		ug/L	10.00		78	70-130	2	25	
1,3,5-Trimethylbenzene	9.94		ug/L	10.00		99	70-130	3	25	
1,3-Dichlorobenzene	10.1		ug/L	10.00		101	70-130	5	25	
1,3-Dichloropropane	8.28		ug/L	10.00		83	70-130	1	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
1,4-Dichlorobenzene	10.0		ug/L	10.00		100	70-130	2	25	
1,4-Dioxane - Screen	207		ug/L	200.0		103	0-332	7	200	
1-Chlorohexane	8.31		ug/L	10.00		83	70-130	2	25	
2,2-Dichloropropane	7.38		ug/L	10.00		74	70-130	3	25	
2-Butanone	39.1		ug/L	50.00		78	70-130	1	25	
2-Chlorotoluene	9.27		ug/L	10.00		93	70-130	0.8	25	
2-Hexanone	41.1		ug/L	50.00		82	70-130	11	25	
4-Chlorotoluene	9.42		ug/L	10.00		94	70-130	0.1	25	
4-Isopropyltoluene	9.43		ug/L	10.00		94	70-130	9	25	
4-Methyl-2-Pentanone	40.6		ug/L	50.00		81	70-130	6	25	
Acetone	47.8		ug/L	50.00		96	70-130	10	25	
Benzene	8.43		ug/L	10.00		84	70-130	0.2	25	
Bromobenzene	10.2		ug/L	10.00		102	70-130	0	25	
Bromochloromethane	9.38		ug/L	10.00		94	70-130	2	25	
Bromodichloromethane	9.12		ug/L	10.00		91	70-130	0.8	25	
Bromoform	10.6		ug/L	10.00		106	70-130	1	25	
Bromomethane	7.22		ug/L	10.00		72	70-130	2	25	
Carbon Disulfide	7.99		ug/L	10.00		80	70-130	0.4	25	
Carbon Tetrachloride	10.5		ug/L	10.00		105	70-130	4	25	
Chlorobenzene	10.2		ug/L	10.00		102	70-130	0.3	25	
Chloroethane	5.76		ug/L	10.00		58	70-130	1	25	B-
Chloroform	8.63		ug/L	10.00		86	70-130	1	25	
Chloromethane	9.71		ug/L	10.00		97	70-130	2	25	
cis-1,2-Dichloroethene	9.30		ug/L	10.00		93	70-130	2	25	
cis-1,3-Dichloropropene	8.23		ug/L	10.00		82	70-130	2	25	
Dibromochloromethane	9.85		ug/L	10.00		98	70-130	2	25	
Dibromomethane	9.15		ug/L	10.00		92	70-130	6	25	
Dichlorodifluoromethane	12.6		ug/L	10.00		126	70-130	2	25	
Diethyl Ether	7.28		ug/L	10.00		73	70-130	6	25	
Di-isopropyl ether	7.84		ug/L	10.00		78	70-130	1	25	
Ethyl tertiary-butyl ether	7.64		ug/L	10.00		76	70-130	2	25	
Ethylbenzene	9.15		ug/L	10.00		92	70-130	1	25	
Hexachlorobutadiene	10.2		ug/L	10.00		102	70-130	7	25	
Hexachloroethane	11.4		ug/L	10.00		114	70-130	6	25	
Isopropylbenzene	9.77		ug/L	10.00		98	70-130	4	25	
Methyl tert-Butyl Ether	8.37		ug/L	10.00		84	70-130	2	25	
Methylene Chloride	11.5		ug/L	10.00		115	70-130	2	25	
Naphthalene	10.8		ug/L	10.00		108	70-130	11	25	
n-Butylbenzene	9.52		ug/L	10.00		95	70-130	8	25	
n-Propylbenzene	9.00		ug/L	10.00		90	70-130	5	25	
sec-Butylbenzene	10.4		ug/L	10.00		104	70-130	7	25	
Styrene	10.1		ug/L	10.00		101	70-130	1	25	
tert-Butylbenzene	10.0		ug/L	10.00		100	70-130	6	25	
Tertiary-amyl methyl ether	7.65		ug/L	10.00		76	70-130	5	25	
Tetrachloroethene	9.50		ug/L	10.00		95	70-130	0.3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62342 - 5030B										
Tetrahydrofuran	8.35		ug/L	10.00		84	70-130	2	25	
Toluene	9.38		ug/L	10.00		94	70-130	0.7	25	
trans-1,2-Dichloroethene	9.38		ug/L	10.00		94	70-130	1	25	
trans-1,3-Dichloropropene	8.07		ug/L	10.00		81	70-130	0.6	25	
Trichloroethene	9.83		ug/L	10.00		98	70-130	2	25	
Trichlorofluoromethane	9.21		ug/L	10.00		92	70-130	2	25	
Vinyl Acetate	7.16		ug/L	10.00		72	70-130	3	25	
Vinyl Chloride	9.42		ug/L	10.00		94	70-130	11	25	
Xylene O	10.6		ug/L	10.00		106	70-130	5	25	
Xylene P,M	20.7		ug/L	20.00		104	70-130	2	25	
Xylenes (Total)	31.3		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0239*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0247*		mg/L	*0.02500*		*99*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0262*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Toluene-d8	*0.0252*		mg/L	*0.02500*		*101*	*70-130*			
Batch CE62430 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0241*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0242*		mg/L	*0.02500*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.0237*		mg/L	*0.02500*		*95*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.50		ug/L	10.00		95	70-130			
1,1,1-Trichloroethane	10.1		ug/L	10.00		101	70-130			
1,1,2,2-Tetrachloroethane	9.86		ug/L	10.00		99	70-130			
1,1,2-Trichloroethane	10.2		ug/L	10.00		102	70-130			
1,1-Dichloroethane	9.82		ug/L	10.00		98	70-130			
1,1-Dichloroethene	10.5		ug/L	10.00		105	70-130			
1,1-Dichloropropene	10.2		ug/L	10.00		102	70-130			
1,2,3-Trichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,2,3-Trichloropropane	9.82		ug/L	10.00		98	70-130			
1,2,4-Trichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,2,4-Trimethylbenzene	9.78		ug/L	10.00		98	70-130			
1,2-Dibromo-3-Chloropropane	9.63		ug/L	10.00		96	70-130			
1,2-Dibromoethane	10.6		ug/L	10.00		106	70-130			
1,2-Dichlorobenzene	10.3		ug/L	10.00		103	70-130			
1,2-Dichloroethane	10.4		ug/L	10.00		104	70-130			
1,2-Dichloropropane	9.79		ug/L	10.00		98	70-130			
1,3,5-Trimethylbenzene	10.8		ug/L	10.00		108	70-130			
1,3-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,3-Dichloropropane	11.1		ug/L	10.00		111	70-130			
1,4-Dichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,4-Dioxane - Screen	214		ug/L	200.0		107	0-332			
1-Chlorohexane	10.5		ug/L	10.00		105	70-130			
2,2-Dichloropropane	9.52		ug/L	10.00		95	70-130			
2-Butanone	48.3		ug/L	50.00		97	70-130			
2-Chlorotoluene	10.4		ug/L	10.00		104	70-130			
2-Hexanone	53.0		ug/L	50.00		106	70-130			
4-Chlorotoluene	10.6		ug/L	10.00		106	70-130			
4-Isopropyltoluene	10.8		ug/L	10.00		108	70-130			
4-Methyl-2-Pentanone	50.8		ug/L	50.00		102	70-130			
Acetone	48.5		ug/L	50.00		97	70-130			
Benzene	10.0		ug/L	10.00		100	70-130			
Bromobenzene	10.2		ug/L	10.00		102	70-130			
Bromochloromethane	10.3		ug/L	10.00		103	70-130			
Bromodichloromethane	10.2		ug/L	10.00		102	70-130			
Bromoform	9.74		ug/L	10.00		97	70-130			
Bromomethane	10.5		ug/L	10.00		105	70-130			
Carbon Disulfide	9.53		ug/L	10.00		95	70-130			
Carbon Tetrachloride	9.33		ug/L	10.00		93	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
Chlorobenzene	10.6		ug/L	10.00		106	70-130			
Chloroethane	8.86		ug/L	10.00		89	70-130			
Chloroform	9.75		ug/L	10.00		98	70-130			
Chloromethane	11.1		ug/L	10.00		111	70-130			
cis-1,2-Dichloroethene	10.4		ug/L	10.00		104	70-130			
cis-1,3-Dichloropropene	9.14		ug/L	10.00		91	70-130			
Dibromochloromethane	9.45		ug/L	10.00		94	70-130			
Dibromomethane	10.0		ug/L	10.00		100	70-130			
Dichlorodifluoromethane	13.4		ug/L	10.00		134	70-130			B+
Diethyl Ether	10.1		ug/L	10.00		101	70-130			
Di-isopropyl ether	9.96		ug/L	10.00		100	70-130			
Ethyl tertiary-butyl ether	11.7		ug/L	10.00		117	70-130			
Ethylbenzene	10.6		ug/L	10.00		106	70-130			
Hexachlorobutadiene	11.0		ug/L	10.00		110	70-130			
Hexachloroethane	9.31		ug/L	10.00		93	70-130			
Isopropylbenzene	10.4		ug/L	10.00		104	70-130			
Methyl tert-Butyl Ether	10.4		ug/L	10.00		104	70-130			
Methylene Chloride	10.2		ug/L	10.00		102	70-130			
Naphthalene	12.6		ug/L	10.00		126	70-130			
n-Butylbenzene	9.93		ug/L	10.00		99	70-130			
n-Propylbenzene	10.5		ug/L	10.00		105	70-130			
sec-Butylbenzene	10.9		ug/L	10.00		109	70-130			
Styrene	10.9		ug/L	10.00		109	70-130			
tert-Butylbenzene	10.6		ug/L	10.00		106	70-130			
Tertiary-amyl methyl ether	12.5		ug/L	10.00		125	70-130			
Tetrachloroethene	8.51		ug/L	10.00		85	70-130			
Tetrahydrofuran	9.73		ug/L	10.00		97	70-130			
Toluene	10.3		ug/L	10.00		103	70-130			
trans-1,2-Dichloroethene	10.6		ug/L	10.00		106	70-130			
trans-1,3-Dichloropropene	8.60		ug/L	10.00		86	70-130			
Trichloroethene	9.94		ug/L	10.00		99	70-130			
Trichlorofluoromethane	9.96		ug/L	10.00		100	70-130			
Vinyl Acetate	10.0		ug/L	10.00		100	70-130			
Vinyl Chloride	12.3		ug/L	10.00		123	70-130			
Xylene O	10.8		ug/L	10.00		108	70-130			
Xylene P,M	22.1		ug/L	20.00		110	70-130			
Xylenes (Total)	32.9		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0270*		mg/L	*0.02500*		*108*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0263*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0282*		mg/L	*0.02500*		*113*	*70-130*			
Surrogate: Toluene-d8	*0.0274*		mg/L	*0.02500*		*110*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.36		ug/L	10.00		94	70-130	1	25	
1,1,1-Trichloroethane	9.93		ug/L	10.00		99	70-130	1	25	
1,1,2,2-Tetrachloroethane	9.51		ug/L	10.00		95	70-130	4	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
1,1,2-Trichloroethane	9.80		ug/L	10.00		98	70-130	4	25	
1,1-Dichloroethane	9.89		ug/L	10.00		99	70-130	0.7	25	
1,1-Dichloroethene	10.6		ug/L	10.00		106	70-130	0.6	25	
1,1-Dichloropropene	10.2		ug/L	10.00		102	70-130	0.4	25	
1,2,3-Trichlorobenzene	10.3		ug/L	10.00		103	70-130	3	25	
1,2,3-Trichloropropane	9.26		ug/L	10.00		93	70-130	6	25	
1,2,4-Trichlorobenzene	10.2		ug/L	10.00		102	70-130	3	25	
1,2,4-Trimethylbenzene	9.66		ug/L	10.00		97	70-130	1	25	
1,2-Dibromo-3-Chloropropane	9.43		ug/L	10.00		94	70-130	2	25	
1,2-Dibromoethane	10.2		ug/L	10.00		102	70-130	4	25	
1,2-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	0.2	25	
1,2-Dichloroethane	10.2		ug/L	10.00		102	70-130	3	25	
1,2-Dichloropropane	9.54		ug/L	10.00		95	70-130	3	25	
1,3,5-Trimethylbenzene	10.7		ug/L	10.00		107	70-130	0.8	25	
1,3-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	0.5	25	
1,3-Dichloropropane	10.6		ug/L	10.00		106	70-130	5	25	
1,4-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	0.9	25	
1,4-Dioxane - Screen	191		ug/L	200.0		96	0-332	11	200	
1-Chlorohexane	10.2		ug/L	10.00		102	70-130	2	25	
2,2-Dichloropropane	9.60		ug/L	10.00		96	70-130	0.8	25	
2-Butanone	48.8		ug/L	50.00		98	70-130	1	25	
2-Chlorotoluene	10.2		ug/L	10.00		102	70-130	2	25	
2-Hexanone	48.9		ug/L	50.00		98	70-130	8	25	
4-Chlorotoluene	10.4		ug/L	10.00		104	70-130	1	25	
4-Isopropyltoluene	10.8		ug/L	10.00		108	70-130	0.09	25	
4-Methyl-2-Pentanone	47.6		ug/L	50.00		95	70-130	6	25	
Acetone	45.6		ug/L	50.00		91	70-130	6	25	
Benzene	9.95		ug/L	10.00		100	70-130	0.8	25	
Bromobenzene	10.0		ug/L	10.00		100	70-130	2	25	
Bromochloromethane	10.1		ug/L	10.00		101	70-130	2	25	
Bromodichloromethane	10.1		ug/L	10.00		101	70-130	0.2	25	
Bromoform	9.39		ug/L	10.00		94	70-130	4	25	
Bromomethane	10.4		ug/L	10.00		104	70-130	1	25	
Carbon Disulfide	9.58		ug/L	10.00		96	70-130	0.5	25	
Carbon Tetrachloride	9.19		ug/L	10.00		92	70-130	2	25	
Chlorobenzene	10.4		ug/L	10.00		104	70-130	2	25	
Chloroethane	8.74		ug/L	10.00		87	70-130	1	25	
Chloroform	9.74		ug/L	10.00		97	70-130	0.1	25	
Chloromethane	11.4		ug/L	10.00		114	70-130	3	25	
cis-1,2-Dichloroethene	10.4		ug/L	10.00		104	70-130	0.2	25	
cis-1,3-Dichloropropene	9.18		ug/L	10.00		92	70-130	0.4	25	
Dibromochloromethane	9.14		ug/L	10.00		91	70-130	3	25	
Dibromomethane	9.65		ug/L	10.00		96	70-130	4	25	
Dichlorodifluoromethane	13.5		ug/L	10.00		135	70-130	1	25	B+
Diethyl Ether	9.78		ug/L	10.00		98	70-130	3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62430 - 5030B										
Di-isopropyl ether	9.76		ug/L	10.00		98	70-130	2	25	
Ethyl tertiary-butyl ether	11.3		ug/L	10.00		113	70-130	3	25	
Ethylbenzene	10.2		ug/L	10.00		102	70-130	4	25	
Hexachlorobutadiene	10.7		ug/L	10.00		107	70-130	3	25	
Hexachloroethane	9.31		ug/L	10.00		93	70-130	0	25	
Isopropylbenzene	10.5		ug/L	10.00		105	70-130	0.4	25	
Methyl tert-Butyl Ether	9.98		ug/L	10.00		100	70-130	5	25	
Methylene Chloride	10.2		ug/L	10.00		102	70-130	0.1	25	
Naphthalene	11.6		ug/L	10.00		116	70-130	8	25	
n-Butylbenzene	9.80		ug/L	10.00		98	70-130	1	25	
n-Propylbenzene	10.5		ug/L	10.00		105	70-130	0.5	25	
sec-Butylbenzene	10.8		ug/L	10.00		108	70-130	0.7	25	
Styrene	10.7		ug/L	10.00		107	70-130	2	25	
tert-Butylbenzene	10.5		ug/L	10.00		105	70-130	0.7	25	
Tertiary-amyl methyl ether	12.1		ug/L	10.00		121	70-130	3	25	
Tetrachloroethene	8.37		ug/L	10.00		84	70-130	2	25	
Tetrahydrofuran	9.60		ug/L	10.00		96	70-130	1	25	
Toluene	10.3		ug/L	10.00		103	70-130	0.8	25	
trans-1,2-Dichloroethene	10.3		ug/L	10.00		103	70-130	2	25	
trans-1,3-Dichloropropene	8.28		ug/L	10.00		83	70-130	4	25	
Trichloroethene	9.92		ug/L	10.00		99	70-130	0.2	25	
Trichlorofluoromethane	9.76		ug/L	10.00		98	70-130	2	25	
Vinyl Acetate	9.70		ug/L	10.00		97	70-130	3	25	
Vinyl Chloride	12.2		ug/L	10.00		122	70-130	0.5	25	
Xylene O	10.5		ug/L	10.00		105	70-130	3	25	
Xylene P,M	21.6		ug/L	20.00		108	70-130	2	25	
Xylenes (Total)	32.1		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0267*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0261*		mg/L	*0.02500*		*104*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0279*		mg/L	*0.02500*		*112*	*70-130*			
Surrogate: Toluene-d8	*0.0269*		mg/L	*0.02500*		*107*	*70-130*			
Batch CE62431 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	0.0004	0.0010	mg/L							J

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0236*		mg/L	*0.02500*		*95*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.0238*		mg/L	*0.02500*		*95*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.66		ug/L	10.00		97	70-130			
1,1,1-Trichloroethane	10.2		ug/L	10.00		102	70-130			
1,1,2,2-Tetrachloroethane	9.86		ug/L	10.00		99	70-130			
1,1,2-Trichloroethane	10.5		ug/L	10.00		105	70-130			
1,1-Dichloroethane	10.2		ug/L	10.00		102	70-130			
1,1-Dichloroethene	10.7		ug/L	10.00		107	70-130			
1,1-Dichloropropene	10.4		ug/L	10.00		104	70-130			
1,2,3-Trichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,2,3-Trichloropropane	9.72		ug/L	10.00		97	70-130			
1,2,4-Trichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,2,4-Trimethylbenzene	9.82		ug/L	10.00		98	70-130			
1,2-Dibromo-3-Chloropropane	9.52		ug/L	10.00		95	70-130			
1,2-Dibromoethane	10.6		ug/L	10.00		106	70-130			
1,2-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,2-Dichloroethane	11.1		ug/L	10.00		111	70-130			
1,2-Dichloropropane	10.2		ug/L	10.00		102	70-130			
1,3,5-Trimethylbenzene	10.7		ug/L	10.00		107	70-130			
1,3-Dichlorobenzene	10.7		ug/L	10.00		107	70-130			
1,3-Dichloropropane	11.2		ug/L	10.00		112	70-130			
1,4-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,4-Dioxane - Screen	235		ug/L	200.0		117	0-332			
1-Chlorohexane	10.1		ug/L	10.00		101	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
2,2-Dichloropropane	7.76		ug/L	10.00		78	70-130			
2-Butanone	52.0		ug/L	50.00		104	70-130			
2-Chlorotoluene	10.3		ug/L	10.00		103	70-130			
2-Hexanone	57.4		ug/L	50.00		115	70-130			
4-Chlorotoluene	10.6		ug/L	10.00		106	70-130			
4-Isopropyltoluene	10.5		ug/L	10.00		105	70-130			
4-Methyl-2-Pentanone	55.5		ug/L	50.00		111	70-130			
Acetone	48.1		ug/L	50.00		96	70-130			
Benzene	10.4		ug/L	10.00		104	70-130			
Bromobenzene	10.1		ug/L	10.00		101	70-130			
Bromochloromethane	10.8		ug/L	10.00		108	70-130			
Bromodichloromethane	10.7		ug/L	10.00		107	70-130			
Bromoform	9.69		ug/L	10.00		97	70-130			
Bromomethane	6.39		ug/L	10.00		64	70-130			B-
Carbon Disulfide	9.64		ug/L	10.00		96	70-130			
Carbon Tetrachloride	9.46		ug/L	10.00		95	70-130			
Chlorobenzene	10.8		ug/L	10.00		108	70-130			
Chloroethane	8.99		ug/L	10.00		90	70-130			
Chloroform	10.3		ug/L	10.00		103	70-130			
Chloromethane	11.7		ug/L	10.00		117	70-130			
cis-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130			
cis-1,3-Dichloropropene	9.07		ug/L	10.00		91	70-130			
Dibromochloromethane	9.41		ug/L	10.00		94	70-130			
Dibromomethane	10.5		ug/L	10.00		105	70-130			
Dichlorodifluoromethane	13.4		ug/L	10.00		134	70-130			B+
Diethyl Ether	10.2		ug/L	10.00		102	70-130			
Di-isopropyl ether	10.3		ug/L	10.00		103	70-130			
Ethyl tertiary-butyl ether	11.6		ug/L	10.00		116	70-130			
Ethylbenzene	10.4		ug/L	10.00		104	70-130			
Hexachlorobutadiene	10.6		ug/L	10.00		106	70-130			
Hexachloroethane	9.25		ug/L	10.00		92	70-130			
Isopropylbenzene	10.4		ug/L	10.00		104	70-130			
Methyl tert-Butyl Ether	10.6		ug/L	10.00		106	70-130			
Methylene Chloride	11.4		ug/L	10.00		114	70-130			
Naphthalene	11.9		ug/L	10.00		119	70-130			
n-Butylbenzene	9.68		ug/L	10.00		97	70-130			
n-Propylbenzene	10.4		ug/L	10.00		104	70-130			
sec-Butylbenzene	10.7		ug/L	10.00		107	70-130			
Styrene	11.0		ug/L	10.00		110	70-130			
tert-Butylbenzene	10.4		ug/L	10.00		104	70-130			
Tertiary-amyl methyl ether	12.3		ug/L	10.00		123	70-130			
Tetrachloroethene	8.40		ug/L	10.00		84	70-130			
Tetrahydrofuran	10.0		ug/L	10.00		100	70-130			
Toluene	10.6		ug/L	10.00		106	70-130			
trans-1,2-Dichloroethene	10.7		ug/L	10.00		107	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
trans-1,3-Dichloropropene	8.52		ug/L	10.00		85	70-130			
Trichloroethene	10.3		ug/L	10.00		103	70-130			
Trichlorofluoromethane	10.3		ug/L	10.00		103	70-130			
Vinyl Acetate	9.91		ug/L	10.00		99	70-130			
Vinyl Chloride	12.6		ug/L	10.00		126	70-130			
Xylene O	10.8		ug/L	10.00		108	70-130			
Xylene P,M	21.7		ug/L	20.00		109	70-130			
Xylenes (Total)	32.5		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0285*		mg/L	*0.02500*		*114*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0264*		mg/L	*0.02500*		*106*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0288*		mg/L	*0.02500*		*115*	*70-130*			
Surrogate: Toluene-d8	*0.0270*		mg/L	*0.02500*		*108*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.65		ug/L	10.00		96	70-130	0.1	25	
1,1,1-Trichloroethane	10.3		ug/L	10.00		103	70-130	0.8	25	
1,1,2,2-Tetrachloroethane	9.85		ug/L	10.00		98	70-130	0.1	25	
1,1,2-Trichloroethane	10.6		ug/L	10.00		106	70-130	1	25	
1,1-Dichloroethane	10.4		ug/L	10.00		104	70-130	1	25	
1,1-Dichloroethene	10.9		ug/L	10.00		109	70-130	1	25	
1,1-Dichloropropene	10.5		ug/L	10.00		105	70-130	0.7	25	
1,2,3-Trichlorobenzene	10.4		ug/L	10.00		104	70-130	3	25	
1,2,3-Trichloropropane	9.66		ug/L	10.00		97	70-130	0.6	25	
1,2,4-Trichlorobenzene	10.2		ug/L	10.00		102	70-130	2	25	
1,2,4-Trimethylbenzene	9.87		ug/L	10.00		99	70-130	0.5	25	
1,2-Dibromo-3-Chloropropane	9.72		ug/L	10.00		97	70-130	2	25	
1,2-Dibromoethane	10.5		ug/L	10.00		105	70-130	0.8	25	
1,2-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	0.2	25	
1,2-Dichloroethane	10.9		ug/L	10.00		109	70-130	1	25	
1,2-Dichloropropane	10.3		ug/L	10.00		103	70-130	0.5	25	
1,3,5-Trimethylbenzene	10.8		ug/L	10.00		108	70-130	1	25	
1,3-Dichlorobenzene	10.6		ug/L	10.00		106	70-130	0.8	25	
1,3-Dichloropropane	10.9		ug/L	10.00		109	70-130	3	25	
1,4-Dichlorobenzene	10.5		ug/L	10.00		105	70-130	1	25	
1,4-Dioxane - Screen	230		ug/L	200.0		115	0-332	2	200	
1-Chlorohexane	10.1		ug/L	10.00		101	70-130	0	25	
2,2-Dichloropropane	7.50		ug/L	10.00		75	70-130	3	25	
2-Butanone	52.4		ug/L	50.00		105	70-130	0.7	25	
2-Chlorotoluene	10.3		ug/L	10.00		103	70-130	0.7	25	
2-Hexanone	55.7		ug/L	50.00		111	70-130	3	25	
4-Chlorotoluene	10.7		ug/L	10.00		107	70-130	0.8	25	
4-Isopropyltoluene	10.6		ug/L	10.00		106	70-130	1	25	
4-Methyl-2-Pentanone	55.5		ug/L	50.00		111	70-130	0.1	25	
Acetone	47.9		ug/L	50.00		96	70-130	0.3	25	
Benzene	10.5		ug/L	10.00		105	70-130	0.7	25	
Bromobenzene	10.2		ug/L	10.00		102	70-130	0.2	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
Bromochloromethane	10.9		ug/L	10.00		109	70-130	1	25	
Bromodichloromethane	10.7		ug/L	10.00		107	70-130	0.3	25	
Bromoform	9.60		ug/L	10.00		96	70-130	0.9	25	
Bromomethane	6.67		ug/L	10.00		67	70-130	4	25	B-
Carbon Disulfide	9.78		ug/L	10.00		98	70-130	1	25	
Carbon Tetrachloride	9.64		ug/L	10.00		96	70-130	2	25	
Chlorobenzene	10.6		ug/L	10.00		106	70-130	2	25	
Chloroethane	9.22		ug/L	10.00		92	70-130	3	25	
Chloroform	10.4		ug/L	10.00		104	70-130	1	25	
Chloromethane	12.3		ug/L	10.00		123	70-130	5	25	
cis-1,2-Dichloroethene	10.8		ug/L	10.00		108	70-130	0.3	25	
cis-1,3-Dichloropropene	9.10		ug/L	10.00		91	70-130	0.3	25	
Dibromochloromethane	9.29		ug/L	10.00		93	70-130	1	25	
Dibromomethane	10.6		ug/L	10.00		106	70-130	1	25	
Dichlorodifluoromethane	13.9		ug/L	10.00		139	70-130	3	25	B+
Diethyl Ether	10.5		ug/L	10.00		105	70-130	2	25	
Di-isopropyl ether	10.2		ug/L	10.00		102	70-130	0.7	25	
Ethyl tertiary-butyl ether	11.8		ug/L	10.00		118	70-130	2	25	
Ethylbenzene	10.4		ug/L	10.00		104	70-130	0.7	25	
Hexachlorobutadiene	10.1		ug/L	10.00		101	70-130	5	25	
Hexachloroethane	9.33		ug/L	10.00		93	70-130	0.9	25	
Isopropylbenzene	10.4		ug/L	10.00		104	70-130	0.6	25	
Methyl tert-Butyl Ether	10.6		ug/L	10.00		106	70-130	0.2	25	
Methylene Chloride	11.1		ug/L	10.00		111	70-130	2	25	
Naphthalene	11.2		ug/L	10.00		112	70-130	7	25	
n-Butylbenzene	9.53		ug/L	10.00		95	70-130	2	25	
n-Propylbenzene	10.4		ug/L	10.00		104	70-130	0.1	25	
sec-Butylbenzene	10.7		ug/L	10.00		107	70-130	0.3	25	
Styrene	11.0		ug/L	10.00		110	70-130	0.5	25	
tert-Butylbenzene	10.6		ug/L	10.00		106	70-130	2	25	
Tertiary-amyl methyl ether	12.5		ug/L	10.00		125	70-130	2	25	
Tetrachloroethene	8.43		ug/L	10.00		84	70-130	0.4	25	
Tetrahydrofuran	9.98		ug/L	10.00		100	70-130	0.6	25	
Toluene	10.7		ug/L	10.00		107	70-130	0.5	25	
trans-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130	1	25	
trans-1,3-Dichloropropene	8.34		ug/L	10.00		83	70-130	2	25	
Trichloroethene	10.4		ug/L	10.00		104	70-130	2	25	
Trichlorofluoromethane	10.5		ug/L	10.00		105	70-130	2	25	
Vinyl Acetate	9.81		ug/L	10.00		98	70-130	1	25	
Vinyl Chloride	13.2		ug/L	10.00		132	70-130	5	25	B+
Xylene O	10.8		ug/L	10.00		108	70-130	0.2	25	
Xylene P,M	21.6		ug/L	20.00		108	70-130	0.6	25	
Xylenes (Total)	32.4		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0283*		mg/L	*0.02500*		*113*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0260*		mg/L	*0.02500*		*104*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62431 - 5030B										
Surrogate: Dibromofluoromethane	*0.0290*		mg/L	*0.02500*		*116*	*70-130*			
Surrogate: Toluene-d8	*0.0268*		mg/L	*0.02500*		*107*	*70-130*			
Batch CE62637 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62637 - 5030B										
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	0.0005	0.0010	mg/L							J
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0266*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0241*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0268*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: Toluene-d8	*0.0237*		mg/L	*0.02500*		*95*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.96		ug/L	10.00		100	70-130			
1,1,1-Trichloroethane	11.2		ug/L	10.00		112	70-130			
1,1,2,2-Tetrachloroethane	9.96		ug/L	10.00		100	70-130			
1,1,2-Trichloroethane	10.8		ug/L	10.00		108	70-130			
1,1-Dichloroethane	10.7		ug/L	10.00		107	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62637 - 5030B										
1,1-Dichloroethene	11.0		ug/L	10.00		110	70-130			
1,1-Dichloropropene	11.0		ug/L	10.00		110	70-130			
1,2,3-Trichlorobenzene	10.8		ug/L	10.00		108	70-130			
1,2,3-Trichloropropane	9.62		ug/L	10.00		96	70-130			
1,2,4-Trichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,2,4-Trimethylbenzene	11.2		ug/L	10.00		112	70-130			
1,2-Dibromo-3-Chloropropane	9.67		ug/L	10.00		97	70-130			
1,2-Dibromoethane	10.6		ug/L	10.00		106	70-130			
1,2-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,2-Dichloroethane	11.8		ug/L	10.00		118	70-130			
1,2-Dichloropropane	10.3		ug/L	10.00		103	70-130			
1,3,5-Trimethylbenzene	10.9		ug/L	10.00		109	70-130			
1,3-Dichlorobenzene	10.8		ug/L	10.00		108	70-130			
1,3-Dichloropropane	11.0		ug/L	10.00		110	70-130			
1,4-Dichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,4-Dioxane - Screen	208		ug/L	200.0		104	0-332			
1-Chlorohexane	9.75		ug/L	10.00		98	70-130			
2,2-Dichloropropane	7.90		ug/L	10.00		79	70-130			
2-Butanone	50.4		ug/L	50.00		101	70-130			
2-Chlorotoluene	10.6		ug/L	10.00		106	70-130			
2-Hexanone	50.9		ug/L	50.00		102	70-130			
4-Chlorotoluene	10.7		ug/L	10.00		107	70-130			
4-Isopropyltoluene	10.9		ug/L	10.00		109	70-130			
4-Methyl-2-Pentanone	50.4		ug/L	50.00		101	70-130			
Acetone	47.6		ug/L	50.00		95	70-130			
Benzene	10.8		ug/L	10.00		108	70-130			
Bromobenzene	10.1		ug/L	10.00		101	70-130			
Bromochloromethane	11.0		ug/L	10.00		110	70-130			
Bromodichloromethane	11.5		ug/L	10.00		115	70-130			
Bromoform	9.85		ug/L	10.00		98	70-130			
Bromomethane	8.05		ug/L	10.00		80	70-130			
Carbon Disulfide	9.71		ug/L	10.00		97	70-130			
Carbon Tetrachloride	10.5		ug/L	10.00		105	70-130			
Chlorobenzene	10.7		ug/L	10.00		107	70-130			
Chloroethane	9.39		ug/L	10.00		94	70-130			
Chloroform	10.9		ug/L	10.00		109	70-130			
Chloromethane	12.5		ug/L	10.00		125	70-130			
cis-1,2-Dichloroethene	11.2		ug/L	10.00		112	70-130			
cis-1,3-Dichloropropene	9.23		ug/L	10.00		92	70-130			
Dibromochloromethane	9.60		ug/L	10.00		96	70-130			
Dibromomethane	10.9		ug/L	10.00		109	70-130			
Dichlorodifluoromethane	16.3		ug/L	10.00		163	70-130			B+
Diethyl Ether	10.5		ug/L	10.00		105	70-130			
Di-isopropyl ether	10.0		ug/L	10.00		100	70-130			
Ethyl tertiary-butyl ether	11.7		ug/L	10.00		117	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62637 - 5030B										
Ethylbenzene	10.4		ug/L	10.00		104	70-130			
Hexachlorobutadiene	11.2		ug/L	10.00		112	70-130			
Hexachloroethane	9.58		ug/L	10.00		96	70-130			
Isopropylbenzene	10.4		ug/L	10.00		104	70-130			
Methyl tert-Butyl Ether	10.7		ug/L	10.00		107	70-130			
Methylene Chloride	10.3		ug/L	10.00		103	70-130			
Naphthalene	12.2		ug/L	10.00		122	70-130			
n-Butylbenzene	11.0		ug/L	10.00		110	70-130			
n-Propylbenzene	10.5		ug/L	10.00		105	70-130			
sec-Butylbenzene	11.0		ug/L	10.00		110	70-130			
Styrene	10.5		ug/L	10.00		105	70-130			
tert-Butylbenzene	10.6		ug/L	10.00		106	70-130			
Tertiary-amyl methyl ether	12.2		ug/L	10.00		122	70-130			
Tetrachloroethene	8.76		ug/L	10.00		88	70-130			
Tetrahydrofuran	8.99		ug/L	10.00		90	70-130			
Toluene	11.0		ug/L	10.00		110	70-130			
trans-1,2-Dichloroethene	11.1		ug/L	10.00		111	70-130			
trans-1,3-Dichloropropene	8.61		ug/L	10.00		86	70-130			
Trichloroethene	11.0		ug/L	10.00		110	70-130			
Trichlorofluoromethane	11.6		ug/L	10.00		116	70-130			
Vinyl Acetate	9.56		ug/L	10.00		96	70-130			
Vinyl Chloride	13.1		ug/L	10.00		131	70-130			B+
Xylene O	10.8		ug/L	10.00		108	70-130			
Xylene P,M	21.7		ug/L	20.00		109	70-130			
Xylenes (Total)	32.5		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0306*		mg/L	*0.02500*		*123*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0265*		mg/L	*0.02500*		*106*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0310*		mg/L	*0.02500*		*124*	*70-130*			
Surrogate: Toluene-d8	*0.0271*		mg/L	*0.02500*		*108*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.52		ug/L	10.00		95	70-130	5	25	
1,1,1-Trichloroethane	11.0		ug/L	10.00		110	70-130	1	25	
1,1,2,2-Tetrachloroethane	9.56		ug/L	10.00		96	70-130	4	25	
1,1,2-Trichloroethane	10.3		ug/L	10.00		103	70-130	5	25	
1,1-Dichloroethane	10.5		ug/L	10.00		105	70-130	2	25	
1,1-Dichloroethene	11.2		ug/L	10.00		112	70-130	2	25	
1,1-Dichloropropene	10.8		ug/L	10.00		108	70-130	2	25	
1,2,3-Trichlorobenzene	10.2		ug/L	10.00		102	70-130	5	25	
1,2,3-Trichloropropane	9.18		ug/L	10.00		92	70-130	5	25	
1,2,4-Trichlorobenzene	9.81		ug/L	10.00		98	70-130	7	25	
1,2,4-Trimethylbenzene	10.9		ug/L	10.00		109	70-130	2	25	
1,2-Dibromo-3-Chloropropane	9.21		ug/L	10.00		92	70-130	5	25	
1,2-Dibromoethane	10.2		ug/L	10.00		102	70-130	3	25	
1,2-Dichlorobenzene	10.1		ug/L	10.00		101	70-130	4	25	
1,2-Dichloroethane	11.5		ug/L	10.00		115	70-130	3	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62637 - 5030B										
1,2-Dichloropropane	10.0		ug/L	10.00		100	70-130	3	25	
1,3,5-Trimethylbenzene	10.6		ug/L	10.00		106	70-130	3	25	
1,3-Dichlorobenzene	10.4		ug/L	10.00		104	70-130	3	25	
1,3-Dichloropropane	10.7		ug/L	10.00		107	70-130	2	25	
1,4-Dichlorobenzene	10.1		ug/L	10.00		101	70-130	4	25	
1,4-Dioxane - Screen	194		ug/L	200.0		97	0-332	7	200	
1-Chlorohexane	9.64		ug/L	10.00		96	70-130	1	25	
2,2-Dichloropropane	7.64		ug/L	10.00		76	70-130	3	25	
2-Butanone	48.0		ug/L	50.00		96	70-130	5	25	
2-Chlorotoluene	10.3		ug/L	10.00		103	70-130	3	25	
2-Hexanone	48.2		ug/L	50.00		96	70-130	5	25	
4-Chlorotoluene	10.5		ug/L	10.00		105	70-130	2	25	
4-Isopropyltoluene	10.5		ug/L	10.00		105	70-130	4	25	
4-Methyl-2-Pentanone	47.8		ug/L	50.00		96	70-130	5	25	
Acetone	44.6		ug/L	50.00		89	70-130	7	25	
Benzene	10.5		ug/L	10.00		105	70-130	3	25	
Bromobenzene	9.76		ug/L	10.00		98	70-130	3	25	
Bromochloromethane	10.9		ug/L	10.00		109	70-130	2	25	
Bromodichloromethane	11.2		ug/L	10.00		112	70-130	3	25	
Bromoform	9.59		ug/L	10.00		96	70-130	3	25	
Bromomethane	8.51		ug/L	10.00		85	70-130	6	25	
Carbon Disulfide	9.73		ug/L	10.00		97	70-130	0.2	25	
Carbon Tetrachloride	10.4		ug/L	10.00		104	70-130	0.3	25	
Chlorobenzene	10.4		ug/L	10.00		104	70-130	3	25	
Chloroethane	9.32		ug/L	10.00		93	70-130	0.7	25	
Chloroform	10.8		ug/L	10.00		108	70-130	1	25	
Chloromethane	12.4		ug/L	10.00		124	70-130	0.9	25	
cis-1,2-Dichloroethene	10.9		ug/L	10.00		109	70-130	3	25	
cis-1,3-Dichloropropene	9.03		ug/L	10.00		90	70-130	2	25	
Dibromochloromethane	9.45		ug/L	10.00		94	70-130	2	25	
Dibromomethane	10.4		ug/L	10.00		104	70-130	4	25	
Dichlorodifluoromethane	15.8		ug/L	10.00		158	70-130	3	25	B+
Diethyl Ether	10.0		ug/L	10.00		100	70-130	4	25	
Di-isopropyl ether	9.86		ug/L	10.00		99	70-130	2	25	
Ethyl tertiary-butyl ether	11.5		ug/L	10.00		115	70-130	1	25	
Ethylbenzene	10.3		ug/L	10.00		103	70-130	1	25	
Hexachlorobutadiene	10.3		ug/L	10.00		103	70-130	8	25	
Hexachloroethane	9.47		ug/L	10.00		95	70-130	1	25	
Isopropylbenzene	10.3		ug/L	10.00		103	70-130	1	25	
Methyl tert-Butyl Ether	10.4		ug/L	10.00		104	70-130	3	25	
Methylene Chloride	10.2		ug/L	10.00		102	70-130	0.9	25	
Naphthalene	11.0		ug/L	10.00		110	70-130	10	25	
n-Butylbenzene	10.5		ug/L	10.00		105	70-130	5	25	
n-Propylbenzene	10.3		ug/L	10.00		103	70-130	2	25	
sec-Butylbenzene	10.6		ug/L	10.00		106	70-130	4	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CE62637 - 5030B										
Styrene	9.89		ug/L	10.00		99	70-130	6	25	
tert-Butylbenzene	10.3		ug/L	10.00		103	70-130	2	25	
Tertiary-amyl methyl ether	12.1		ug/L	10.00		121	70-130	1	25	
Tetrachloroethene	8.53		ug/L	10.00		85	70-130	3	25	
Tetrahydrofuran	8.48		ug/L	10.00		85	70-130	6	25	
Toluene	10.7		ug/L	10.00		107	70-130	2	25	
trans-1,2-Dichloroethene	10.7		ug/L	10.00		107	70-130	3	25	
trans-1,3-Dichloropropene	8.56		ug/L	10.00		86	70-130	0.6	25	
Trichloroethene	10.5		ug/L	10.00		105	70-130	4	25	
Trichlorofluoromethane	11.4		ug/L	10.00		114	70-130	1	25	
Vinyl Acetate	9.26		ug/L	10.00		93	70-130	3	25	
Vinyl Chloride	13.0		ug/L	10.00		130	70-130	0.4	25	
Xylene O	10.7		ug/L	10.00		107	70-130	1	25	
Xylene P,M	21.3		ug/L	20.00		106	70-130	2	25	
Xylenes (Total)	31.9		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0306*		mg/L	*0.02500*		*122*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0262*		mg/L	*0.02500*		*105*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0307*		mg/L	*0.02500*		*123*	*70-130*			
Surrogate: Toluene-d8	*0.0270*		mg/L	*0.02500*		*108*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1605608

Notes and Definitions

U	Analyte included in the analysis, but not detected
J	Reported between MDL and MRL
D	Diluted.
CD+	Continuing Calibration %Diff/Drift is above control limit (CD+).
CD-	Continuing Calibration %Diff/Drift is below control limit (CD-).
B+	Blank Spike recovery is above upper control limit (B+).
B-	Blank Spike recovery is below lower control limit (B-).
B	Present in Method Blank (B).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1605608

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Providence, RI - GZA/CMT

Shipped/Delivered Via: Client

ESS Project ID: 1605608
Date Received: 5/20/2016
Project Due Date: 5/27/2016
Days for Project: 5 Day

1. Air bill manifest present? No
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 4.8 Iced with: Ice
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. **Were labs informed about short holds & rushes?** Yes / No (NA)
10. Were any analyses received outside of hold time? Yes / (No)

11. Any Subcontracting needed? Yes / (No)
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? (Yes) / No
    a. Air bubbles in aqueous VOAs? Yes / (No)
    b. Does methanol cover soil completely? Yes / No (NA)

13. Are the samples properly preserved? (Yes) / No
    a. If metals preserved upon receipt: Date: Time: By:
    b. Low Level VOAs brought to freezer: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / (No)
    a. Was there a need to contact the client? Yes / No
    Who was contacted? Date: Time: By:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	38463	Yes	No	Yes	VOA Vial - HCl	HCL	
01	38464	Yes	No	Yes	VOA Vial - HCl	HCL	
01	38465	Yes	No	Yes	VOA Vial - HCl	HCL	
02	38460	Yes	No	Yes	VOA Vial - HCl	HCL	
02	38461	Yes	No	Yes	VOA Vial - HCl	HCL	
02	38462	Yes	No	Yes	VOA Vial - HCl	HCL	
03	38457	Yes	No	Yes	VOA Vial - HCl	HCL	
03	38458	Yes	No	Yes	VOA Vial - HCl	HCL	
03	38459	Yes	No	Yes	VOA Vial - HCl	HCL	
04	38454	Yes	No	Yes	VOA Vial - HCl	HCL	
04	38455	Yes	No	Yes	VOA Vial - HCl	HCL	
04	38456	Yes	No	Yes	VOA Vial - HCl	HCL	
05	38451	Yes	No	Yes	VOA Vial - HCl	HCL	
05	38452	Yes	No	Yes	VOA Vial - HCl	HCL	
05	38453	Yes	No	Yes	VOA Vial - HCl	HCL	
06	38448	Yes	No	Yes	VOA Vial - HCl	HCL	
06	38449	Yes	No	Yes	VOA Vial - HCl	HCL	
06	38450	Yes	No	Yes	VOA Vial - HCl	HCL	
07	38445	Yes	No	Yes	VOA Vial - HCl	HCL	
07	38446	Yes	No	Yes	VOA Vial - HCl	HCL	
07	38447	Yes	No	Yes	VOA Vial - HCl	HCL	
08	38442	Yes	No	Yes	VOA Vial - HCl	HCL	
08	38443	Yes	No	Yes	VOA Vial - HCl	HCL	

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Providence, RI - GZA/CMT

ESS Project ID: 1605608
Date Received: 5/20/2016

08	38444	Yes	No	Yes	VOA Vial - HCl	HCL
09	38439	Yes	No	Yes	VOA Vial - HCl	HCL
09	38440	Yes	No	Yes	VOA Vial - HCl	HCL
09	38441	Yes	No	Yes	VOA Vial - HCl	HCL
10	38436	Yes	No	Yes	VOA Vial - HCl	HCL
10	38437	Yes	No	Yes	VOA Vial - HCl	HCL
10	38438	Yes	No	Yes	VOA Vial - HCl	HCL

2nd Review
Are barcode labels on correct containers? (Yes) No

Completed By: _____ Date & Time: 5.2016 1858

Reviewed By: _____ Date & Time: 5/20/16 2025

Delivered By: _____ 5/20/16 2025

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # L605608

Turn Time 7 Standard Other_____

Regulatory State: MA (RI) CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - GB

Electonic Deliverables Excel Access PDF

Co. Name: GZA	Project #: 33554.00	Project Name: GZ Allens Ave	
Contact Person: Meg Kilpatrick	Address: 530 Broadway		
City: Providence	State: RI	Zip: 02909	PO #:
Tel. 401 421 4140	Fax:	email: m.kilpatrick@gza.com	

Analysis: VOC

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container
1	5/20/19	11:50	G	GW	GZ-304D	2	3	V	40mL
2		11:35			RCA-12R				
3		10:50			GZ-304D				
4		10:00			RCA-1				
5		8:50			GZ-309D				
6		8:55			VHB-1				
7		12:12			VHB-8R				
8		11:45			RCA-11				
9		11:06			VHB-7				
10		10:29			VHB-21				

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present X Yes ____ No

Seals Intact ____ Yes ____ No NA: X

Cooler Temperature: 4.8 ICE 4.1 5.2 0.4

Internal Use Only

[ ] Pickup (20)

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: Sam Haupt / Matt Muto / Sophia Narciewicz

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
5/20/16 16:49	5/20/16 16:49		
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Meg Kilpatrick
GZA GeoEnvironmental, Inc.
530 Broadway
Providence, RI 02909

RE: 642 Allens Ave (03.0033554.00)
ESS Laboratory Work Order Number: 1705838

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 4:18 pm, Jun 08, 2017

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

SAMPLE RECEIPT

The following samples were received on May 31, 2017 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1705838-01	BD053017	Aqueous	8260B
1705838-02	GZ201	Aqueous	8260B
1705838-03	RCA-36	Aqueous	8260B
1705838-04	GZ319D	Aqueous	8260B
1705838-05	VHB20	Aqueous	8260B
1705838-06	RCA22	Aqueous	8260B
1705838-07	RCA-1	Aqueous	8260B
1705838-08	GZ-304D	Aqueous	8260B
1705838-09	GZA-301D	Aqueous	8260B
1705838-10	RCA-12R	Aqueous	8260B
1705838-11	GZ-309D	Aqueous	8260B
1705838-12	RCA-15	Aqueous	8260B
1705838-13	Trip Blank	Aqueous	8260B
1705838-14	Trip Blank	Aqueous	8260B

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

PROJECT NARRATIVE

8260B Volatile Organic Compounds

CF70129-BS1 **Blank Spike recovery is above upper control limit (B+).**
2-Butanone (131% @ 70-130%), Acetone (133% @ 70-130%), Bromomethane (145% @ 70-130%), Diethyl Ether (131% @ 70-130%), Tetrahydrofuran (144% @ 70-130%), Vinyl Chloride (135% @ 70-130%)

CF70129-BSD1 **Blank Spike recovery is above upper control limit (B+).**
Tetrahydrofuran (131% @ 70-130%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

To ensure you are viewing the most current version of the documents below, please clear your internet cookies for www.ESSLaboratory.com. Consult your IT Support personnel for information on how to clear your internet cookies.

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD053017
Date Sampled: 05/30/17 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-01
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 20:43	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 20:43	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 20:43	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Benzene	**0.0085** (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 20:43	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD053017
Date Sampled: 05/30/17 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-01
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 20:43	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Isopropylbenzene	**0.0016** (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Naphthalene	**0.0011** (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: BD053017
Date Sampled: 05/30/17 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-01
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 20:43	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 20:43		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*94 %*		*70-130*
Surrogate: Dibromofluoromethane	*84 %*		*70-130*
Surrogate: Toluene-d8	*91 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ201
Date Sampled: 05/30/17 11:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-02
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/06/17 13:33	C7F0087	CF70634
1-Chlorohexane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
2-Butanone	ND (0.0100)		8260B		1	06/06/17 13:33	C7F0087	CF70634
2-Chlorotoluene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
2-Hexanone	ND (0.0100)		8260B		1	06/06/17 13:33	C7F0087	CF70634
4-Chlorotoluene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Acetone	ND (0.0100)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Benzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Bromobenzene	ND (0.0020)		8260B		1	06/06/17 13:33	C7F0087	CF70634

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ201
Date Sampled: 05/30/17 11:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-02
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Bromodichloromethane	ND (0.0006)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Bromoform	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Bromomethane	ND (0.0020)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Carbon Disulfide	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Chlorobenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Chloroethane	ND (0.0020)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Chloroform	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Chloromethane	ND (0.0020)		8260B		1	06/06/17 13:33	C7F0087	CF70634
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Dibromochloromethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Dibromomethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Diethyl Ether	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Di-isopropyl ether	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Ethylbenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Hexachloroethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Isopropylbenzene	**0.0042** (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Methylene Chloride	ND (0.0020)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Naphthalene	**0.0037** (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
n-Butylbenzene	**0.0019** (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
n-Propylbenzene	**0.0023** (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
sec-Butylbenzene	**0.0026** (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Styrene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
tert-Butylbenzene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Tetrachloroethene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ201
Date Sampled: 05/30/17 11:15
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-02
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Toluene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Trichloroethene	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Vinyl Acetate	ND (0.0050)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Vinyl Chloride	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Xylene O	ND (0.0010)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Xylene P,M	ND (0.0020)		8260B		1	06/06/17 13:33	C7F0087	CF70634
Xylenes (Total)	ND (0.0020)		8260B		1	06/06/17 13:33		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*97 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*96 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*95 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 05/30/17 14:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-03
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,2,4-Trimethylbenzene	**0.0027** (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 21:10	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 21:10	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 21:10	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Benzene	**0.0362** (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 21:10	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 05/30/17 14:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-03
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 21:10	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Ethylbenzene	**0.0034** (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Isopropylbenzene	**0.0010** (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Naphthalene	**0.0027** (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-36
Date Sampled: 05/30/17 14:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-03
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Xylene O	**0.0015** (0.0010)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 21:10	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 21:10		[CALC]

	%Recovery	*Qualifier*	*Limits*
Surrogate: 1,2-Dichloroethane-d4	*96 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*92 %*		*70-130*
Surrogate: Dibromofluoromethane	*83 %*		*70-130*
Surrogate: Toluene-d8	*92 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ319D
Date Sampled: 05/30/17 14:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-04
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 14:01	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 14:01	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 14:01	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Benzene	**0.0086** (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 14:01	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ319D
Date Sampled: 05/30/17 14:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-04
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 14:01	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Isopropylbenzene	**0.0015** (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Naphthalene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ319D
Date Sampled: 05/30/17 14:10
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-04
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 14:01	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 14:01		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*96 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*92 %*		*70-130*
Surrogate: Dibromofluoromethane	*86 %*		*70-130*
Surrogate: Toluene-d8	*92 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB20
Date Sampled: 05/30/17 14:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-05
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 14:28	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 14:28	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 14:28	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Benzene	**0.0086** (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 14:28	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB20
Date Sampled: 05/30/17 14:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-05
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 14:28	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Ethylbenzene	**0.0026** (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Isopropylbenzene	**0.0026** (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Naphthalene	**0.0062** (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: VHB20
Date Sampled: 05/30/17 14:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-05
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Xylene O	**0.0017** (0.0010)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 14:28	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 14:28		[CALC]

	%Recovery	*Qualifier*	*Limits*
Surrogate: 1,2-Dichloroethane-d4	*93 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*91 %*		*70-130*
Surrogate: Dibromofluoromethane	*84 %*		*70-130*
Surrogate: Toluene-d8	*91 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA22
Date Sampled: 05/30/17 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-06
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,2,4-Trimethylbenzene	**0.0048** (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 19:23	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 19:23	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 19:23	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Benzene	**0.862** (0.0200)		8260B		20	06/06/17 14:00	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 19:23	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA22
Date Sampled: 05/30/17 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-06
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 19:23	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Ethylbenzene	**0.0390** (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Isopropylbenzene	**0.0323** (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Naphthalene	**0.671** (0.0200)		8260B		20	06/06/17 14:00	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
n-Propylbenzene	**0.0100** (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
sec-Butylbenzene	**0.0019** (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA22
Date Sampled: 05/30/17 12:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-06
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Xylene O	**0.0128** (0.0010)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Xylene P,M	**0.0027** (0.0020)		8260B		1	06/01/17 19:23	C7F0020	CF70129
Xylenes (Total)	**0.0155** (0.0020)		8260B		1	06/01/17 19:23		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*93 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*93 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 05/31/17 10:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-07
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 14:54	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 14:54	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 14:54	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Benzene	**0.0028** (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 14:54	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 05/31/17 10:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-07
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 14:54	C7F0020	CF70129
cis-1,2-Dichloroethene	**0.0011** (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Isopropylbenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Naphthalene	**0.0251** (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-1
Date Sampled: 05/31/17 10:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-07
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Vinyl Chloride	**0.0059** (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 14:54	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 14:54		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*93 %*		*70-130*
Surrogate: Dibromofluoromethane	*86 %*		*70-130*
Surrogate: Toluene-d8	*94 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 05/31/17 10:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-08
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 15:21	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 15:21	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 15:21	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Benzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 15:21	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 05/31/17 10:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-08
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 15:21	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Isopropylbenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Naphthalene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-304D
Date Sampled: 05/31/17 10:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-08
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 15:21	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 15:21		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*92 %*		*70-130*
Surrogate: Dibromofluoromethane	*86 %*		*70-130*
Surrogate: Toluene-d8	*92 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZA-301D
Date Sampled: 05/31/17 11:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-09
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 15:48	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 15:48	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 15:48	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Benzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 15:48	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZA-301D
Date Sampled: 05/31/17 11:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-09
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 15:48	C7F0020	CF70129
cis-1,2-Dichloroethene	**0.0016** (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Isopropylbenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Naphthalene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZA-301D
Date Sampled: 05/31/17 11:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-09
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Vinyl Chloride	**0.0019** (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 15:48	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 15:48		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*95 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*92 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*93 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 05/31/17 11:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-10
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 16:15	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 16:15	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 16:15	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Benzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 16:15	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 05/31/17 11:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-10
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 16:15	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Isopropylbenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Naphthalene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-12R
Date Sampled: 05/31/17 11:45
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-10
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Trichloroethene	**0.0014** (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 16:15	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 16:15		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*92 %*		*70-130*
Surrogate: Dibromofluoromethane	*84 %*		*70-130*
Surrogate: Toluene-d8	*92 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-309D
Date Sampled: 05/31/17 13:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-11
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 20:16	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 20:16	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 20:16	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Benzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 20:16	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-309D
Date Sampled: 05/31/17 13:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-11
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 20:16	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Isopropylbenzene	**0.0071** (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Naphthalene	**0.0022** (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
n-Propylbenzene	**0.0019** (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
sec-Butylbenzene	**0.0022** (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: GZ-309D
Date Sampled: 05/31/17 13:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-11
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 20:16	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 20:16		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*95 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*95 %*		*70-130*
Surrogate: Dibromofluoromethane	*84 %*		*70-130*
Surrogate: Toluene-d8	*90 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-15
Date Sampled: 05/31/17 14:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-12
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 16:42	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 16:42	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 16:42	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Benzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 16:42	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-15
Date Sampled: 05/31/17 14:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-12
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 16:42	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Isopropylbenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Naphthalene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: RCA-15
Date Sampled: 05/31/17 14:40
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-12
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 16:42	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 16:42		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*91 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*93 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 05/30/17 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-13
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 13:07	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 13:07	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 13:07	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Benzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 13:07	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 05/30/17 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-13
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 13:07	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Isopropylbenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Naphthalene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 05/30/17 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-13
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 13:07	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 13:07		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*92 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*92 %*		*70-130*
Surrogate: Dibromofluoromethane	*83 %*		*70-130*
Surrogate: Toluene-d8	*93 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 05/31/17 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-14
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,1-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,1-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,1-Dichloropropene	ND (0.0020)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,2-Dibromoethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,2-Dichloroethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,3-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1,4-Dioxane - Screen	ND (0.500)		8260B		1	06/01/17 13:34	C7F0020	CF70129
1-Chlorohexane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
2,2-Dichloropropane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
2-Butanone	ND (0.0100)		8260B		1	06/01/17 13:34	C7F0020	CF70129
2-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
2-Hexanone	ND (0.0100)		8260B		1	06/01/17 13:34	C7F0020	CF70129
4-Chlorotoluene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
4-Isopropyltoluene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Acetone	ND (0.0100)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Benzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Bromobenzene	ND (0.0020)		8260B		1	06/01/17 13:34	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 05/31/17 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-14
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Bromodichloromethane	ND (0.0006)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Bromoform	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Bromomethane	ND (0.0020)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Carbon Disulfide	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Carbon Tetrachloride	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Chlorobenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Chloroethane	ND (0.0020)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Chloroform	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Chloromethane	ND (0.0020)		8260B		1	06/01/17 13:34	C7F0020	CF70129
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Dibromochloromethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Dibromomethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Dichlorodifluoromethane	ND (0.0020)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Diethyl Ether	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Di-isopropyl ether	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Ethylbenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Hexachlorobutadiene	ND (0.0006)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Hexachloroethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Isopropylbenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Methylene Chloride	ND (0.0020)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Naphthalene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
n-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
n-Propylbenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
sec-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Styrene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
tert-Butylbenzene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Tetrachloroethene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave
Client Sample ID: Trip Blank
Date Sampled: 05/31/17 08:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1705838
ESS Laboratory Sample ID: 1705838-14
Sample Matrix: Aqueous
Units: mg/L
Analyst: GEM

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Toluene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Trichloroethene	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Trichlorofluoromethane	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Vinyl Acetate	ND (0.0050)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Vinyl Chloride	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Xylene O	ND (0.0010)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Xylene P,M	ND (0.0020)		8260B		1	06/01/17 13:34	C7F0020	CF70129
Xylenes (Total)	ND (0.0020)		8260B		1	06/01/17 13:34		[CALC]

	%Recovery	*Qualifier*	*Limits*
Surrogate: 1,2-Dichloroethane-d4	*94 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*93 %*		*70-130*
Surrogate: Dibromofluoromethane	*85 %*		*70-130*
Surrogate: Toluene-d8	*93 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70129 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70129 - 5030B										
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0236*		mg/L	*0.02500*		*94*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0227*		mg/L	*0.02500*		*91*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0217*		mg/L	*0.02500*		*87*	*70-130*			
Surrogate: Toluene-d8	*0.0230*		mg/L	*0.02500*		*92*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.89		ug/L	10.00		99	70-130			
1,1,1-Trichloroethane	10.8		ug/L	10.00		108	70-130			
1,1,2,2-Tetrachloroethane	11.4		ug/L	10.00		114	70-130			
1,1,2-Trichloroethane	10.1		ug/L	10.00		101	70-130			
1,1-Dichloroethane	11.5		ug/L	10.00		115	70-130			
1,1-Dichloroethene	11.5		ug/L	10.00		115	70-130			
1,1-Dichloropropene	11.4		ug/L	10.00		114	70-130			
1,2,3-Trichlorobenzene	11.2		ug/L	10.00		112	70-130			
1,2,3-Trichloropropane	10.5		ug/L	10.00		105	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70129 - 5030B										
1,2,4-Trichlorobenzene	11.1		ug/L	10.00		111	70-130			
1,2,4-Trimethylbenzene	10.4		ug/L	10.00		104	70-130			
1,2-Dibromo-3-Chloropropane	11.6		ug/L	10.00		116	70-130			
1,2-Dibromoethane	10.1		ug/L	10.00		101	70-130			
1,2-Dichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,2-Dichloroethane	11.6		ug/L	10.00		116	70-130			
1,2-Dichloropropane	11.0		ug/L	10.00		110	70-130			
1,3,5-Trimethylbenzene	10.2		ug/L	10.00		102	70-130			
1,3-Dichlorobenzene	10.0		ug/L	10.00		100	70-130			
1,3-Dichloropropane	11.8		ug/L	10.00		118	70-130			
1,4-Dichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,4-Dioxane - Screen	241		ug/L	200.0		120	0-332			
1-Chlorohexane	9.89		ug/L	10.00		99	70-130			
2,2-Dichloropropane	10.9		ug/L	10.00		109	70-130			
2-Butanone	65.6		ug/L	50.00		131	70-130			B+
2-Chlorotoluene	10.4		ug/L	10.00		104	70-130			
2-Hexanone	63.9		ug/L	50.00		128	70-130			
4-Chlorotoluene	10.7		ug/L	10.00		107	70-130			
4-Isopropyltoluene	10.7		ug/L	10.00		107	70-130			
4-Methyl-2-Pentanone	56.8		ug/L	50.00		114	70-130			
Acetone	66.4		ug/L	50.00		133	70-130			B+
Benzene	10.9		ug/L	10.00		109	70-130			
Bromobenzene	10.3		ug/L	10.00		103	70-130			
Bromochloromethane	10.6		ug/L	10.00		106	70-130			
Bromodichloromethane	10.0		ug/L	10.00		100	70-130			
Bromoform	8.04		ug/L	10.00		80	70-130			
Bromomethane	14.5		ug/L	10.00		145	70-130			B+
Carbon Disulfide	11.6		ug/L	10.00		116	70-130			
Carbon Tetrachloride	10.4		ug/L	10.00		104	70-130			
Chlorobenzene	10.4		ug/L	10.00		104	70-130			
Chloroethane	13.0		ug/L	10.00		130	70-130			
Chloroform	11.0		ug/L	10.00		110	70-130			
Chloromethane	12.8		ug/L	10.00		128	70-130			
cis-1,2-Dichloroethene	10.6		ug/L	10.00		106	70-130			
cis-1,3-Dichloropropene	10.5		ug/L	10.00		105	70-130			
Dibromochloromethane	9.38		ug/L	10.00		94	70-130			
Dibromomethane	10.3		ug/L	10.00		103	70-130			
Dichlorodifluoromethane	11.3		ug/L	10.00		113	70-130			
Diethyl Ether	13.1		ug/L	10.00		131	70-130			B+
Di-isopropyl ether	12.8		ug/L	10.00		128	70-130			
Ethyl tertiary-butyl ether	10.8		ug/L	10.00		108	70-130			
Ethylbenzene	10.1		ug/L	10.00		101	70-130			
Hexachlorobutadiene	12.4		ug/L	10.00		124	70-130			
Hexachloroethane	9.47		ug/L	10.00		95	70-130			
Isopropylbenzene	9.81		ug/L	10.00		98	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70129 - 5030B										
Methyl tert-Butyl Ether	11.2		ug/L	10.00		112	70-130			
Methylene Chloride	11.6		ug/L	10.00		116	70-130			
Naphthalene	10.6		ug/L	10.00		106	70-130			
n-Butylbenzene	11.6		ug/L	10.00		116	70-130			
n-Propylbenzene	10.3		ug/L	10.00		103	70-130			
sec-Butylbenzene	10.6		ug/L	10.00		106	70-130			
Styrene	9.71		ug/L	10.00		97	70-130			
tert-Butylbenzene	10.5		ug/L	10.00		105	70-130			
Tertiary-amyl methyl ether	9.46		ug/L	10.00		95	70-130			
Tetrachloroethene	10.6		ug/L	10.00		106	70-130			
Tetrahydrofuran	14.4		ug/L	10.00		144	70-130			B+
Toluene	9.91		ug/L	10.00		99	70-130			
trans-1,2-Dichloroethene	10.6		ug/L	10.00		106	70-130			
trans-1,3-Dichloropropene	9.91		ug/L	10.00		99	70-130			
Trichloroethene	10.4		ug/L	10.00		104	70-130			
Trichlorofluoromethane	12.4		ug/L	10.00		124	70-130			
Vinyl Acetate	12.3		ug/L	10.00		123	70-130			
Vinyl Chloride	13.5		ug/L	10.00		135	70-130			B+
Xylene O	9.80		ug/L	10.00		98	70-130			
Xylene P,M	20.2		ug/L	20.00		101	70-130			
Xylenes (Total)	30.0		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0265*		mg/L	*0.02500*		*106*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0238*		mg/L	*0.02500*		*95*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
Surrogate: Toluene-d8	*0.0246*		mg/L	*0.02500*		*98*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.01		ug/L	10.00		90	70-130	9	25	
1,1,1-Trichloroethane	10.1		ug/L	10.00		101	70-130	7	25	
1,1,2,2-Tetrachloroethane	10.1		ug/L	10.00		101	70-130	12	25	
1,1,2-Trichloroethane	9.55		ug/L	10.00		96	70-130	5	25	
1,1-Dichloroethane	10.6		ug/L	10.00		106	70-130	8	25	
1,1-Dichloroethene	11.2		ug/L	10.00		112	70-130	2	25	
1,1-Dichloropropene	10.6		ug/L	10.00		106	70-130	7	25	
1,2,3-Trichlorobenzene	9.84		ug/L	10.00		98	70-130	13	25	
1,2,3-Trichloropropane	9.57		ug/L	10.00		96	70-130	9	25	
1,2,4-Trichlorobenzene	9.70		ug/L	10.00		97	70-130	13	25	
1,2,4-Trimethylbenzene	9.46		ug/L	10.00		95	70-130	10	25	
1,2-Dibromo-3-Chloropropane	10.1		ug/L	10.00		101	70-130	14	25	
1,2-Dibromoethane	9.72		ug/L	10.00		97	70-130	4	25	
1,2-Dichlorobenzene	9.43		ug/L	10.00		94	70-130	11	25	
1,2-Dichloroethane	10.7		ug/L	10.00		107	70-130	9	25	
1,2-Dichloropropane	10.3		ug/L	10.00		103	70-130	7	25	
1,3,5-Trimethylbenzene	9.22		ug/L	10.00		92	70-130	10	25	
1,3-Dichlorobenzene	9.07		ug/L	10.00		91	70-130	10	25	
1,3-Dichloropropane	10.9		ug/L	10.00		109	70-130	9	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70129 - 5030B										
1,4-Dichlorobenzene	9.59		ug/L	10.00		96	70-130	9	25	
1,4-Dioxane - Screen	213		ug/L	200.0		106	0-332	12	200	
1-Chlorohexane	9.09		ug/L	10.00		91	70-130	8	25	
2,2-Dichloropropane	9.95		ug/L	10.00		100	70-130	9	25	
2-Butanone	62.7		ug/L	50.00		125	70-130	5	25	
2-Chlorotoluene	9.32		ug/L	10.00		93	70-130	11	25	
2-Hexanone	61.3		ug/L	50.00		123	70-130	4	25	
4-Chlorotoluene	9.55		ug/L	10.00		96	70-130	11	25	
4-Isopropyltoluene	9.68		ug/L	10.00		97	70-130	10	25	
4-Methyl-2-Pentanone	53.8		ug/L	50.00		108	70-130	5	25	
Acetone	58.6		ug/L	50.00		117	70-130	12	25	
Benzene	9.97		ug/L	10.00		100	70-130	9	25	
Bromobenzene	9.41		ug/L	10.00		94	70-130	9	25	
Bromochloromethane	9.85		ug/L	10.00		98	70-130	8	25	
Bromodichloromethane	9.18		ug/L	10.00		92	70-130	9	25	
Bromoform	7.55		ug/L	10.00		76	70-130	6	25	
Bromomethane	13.0		ug/L	10.00		130	70-130	11	25	
Carbon Disulfide	10.7		ug/L	10.00		107	70-130	8	25	
Carbon Tetrachloride	9.60		ug/L	10.00		96	70-130	8	25	
Chlorobenzene	9.71		ug/L	10.00		97	70-130	6	25	
Chloroethane	12.2		ug/L	10.00		122	70-130	6	25	
Chloroform	10.1		ug/L	10.00		101	70-130	8	25	
Chloromethane	11.9		ug/L	10.00		119	70-130	7	25	
cis-1,2-Dichloroethene	9.45		ug/L	10.00		94	70-130	11	25	
cis-1,3-Dichloropropene	9.69		ug/L	10.00		97	70-130	8	25	
Dibromochloromethane	8.83		ug/L	10.00		88	70-130	6	25	
Dibromomethane	9.59		ug/L	10.00		96	70-130	7	25	
Dichlorodifluoromethane	10.5		ug/L	10.00		105	70-130	7	25	
Diethyl Ether	12.0		ug/L	10.00		120	70-130	8	25	
Di-isopropyl ether	11.9		ug/L	10.00		119	70-130	8	25	
Ethyl tertiary-butyl ether	10.1		ug/L	10.00		101	70-130	7	25	
Ethylbenzene	9.40		ug/L	10.00		94	70-130	7	25	
Hexachlorobutadiene	10.4		ug/L	10.00		104	70-130	17	25	
Hexachloroethane	7.94		ug/L	10.00		79	70-130	18	25	
Isopropylbenzene	8.76		ug/L	10.00		88	70-130	11	25	
Methyl tert-Butyl Ether	10.0		ug/L	10.00		100	70-130	10	25	
Methylene Chloride	11.0		ug/L	10.00		110	70-130	4	25	
Naphthalene	9.38		ug/L	10.00		94	70-130	12	25	
n-Butylbenzene	9.95		ug/L	10.00		100	70-130	15	25	
n-Propylbenzene	9.38		ug/L	10.00		94	70-130	9	25	
sec-Butylbenzene	9.46		ug/L	10.00		95	70-130	12	25	
Styrene	9.12		ug/L	10.00		91	70-130	6	25	
tert-Butylbenzene	9.53		ug/L	10.00		95	70-130	9	25	
Tertiary-amyl methyl ether	8.74		ug/L	10.00		87	70-130	8	25	
Tetrachloroethene	9.95		ug/L	10.00		100	70-130	6	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70129 - 5030B										
Tetrahydrofuran	13.1		ug/L	10.00		131	70-130	9	25	B+
Toluene	9.11		ug/L	10.00		91	70-130	8	25	
trans-1,2-Dichloroethene	10.1		ug/L	10.00		101	70-130	4	25	
trans-1,3-Dichloropropene	8.84		ug/L	10.00		88	70-130	11	25	
Trichloroethene	9.70		ug/L	10.00		97	70-130	7	25	
Trichlorofluoromethane	11.4		ug/L	10.00		114	70-130	8	25	
Vinyl Acetate	10.7		ug/L	10.00		107	70-130	14	25	
Vinyl Chloride	12.6		ug/L	10.00		126	70-130	7	25	
Xylene O	9.46		ug/L	10.00		95	70-130	4	25	
Xylene P,M	19.1		ug/L	20.00		96	70-130	5	25	
Xylenes (Total)	28.6		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0268*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0241*		mg/L	*0.02500*		*97*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0247*		mg/L	*0.02500*		*99*	*70-130*			
Surrogate: Toluene-d8	*0.0254*		mg/L	*0.02500*		*102*	*70-130*			
Batch CF70634 - 5030B										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0100	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70634 - 5030B										
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0100	mg/L							
Benzene	ND	0.0010	mg/L							
Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70634 - 5030B										
Xylene P,M	ND	0.0020	mg/L							
Xylenes (Total)	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0241*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0239*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0212*		mg/L	*0.02500*		*85*	*70-130*			
Surrogate: Toluene-d8	*0.0230*		mg/L	*0.02500*		*92*	*70-130*			
LCS										
1,1,1,2-Tetrachloroethane	9.68		ug/L	10.00		97	70-130			
1,1,1-Trichloroethane	10.4		ug/L	10.00		104	70-130			
1,1,2,2-Tetrachloroethane	10.1		ug/L	10.00		101	70-130			
1,1,2-Trichloroethane	9.91		ug/L	10.00		99	70-130			
1,1-Dichloroethane	10.2		ug/L	10.00		102	70-130			
1,1-Dichloroethene	10.7		ug/L	10.00		107	70-130			
1,1-Dichloropropene	10.7		ug/L	10.00		107	70-130			
1,2,3-Trichlorobenzene	10.8		ug/L	10.00		108	70-130			
1,2,3-Trichloropropane	9.73		ug/L	10.00		97	70-130			
1,2,4-Trichlorobenzene	10.6		ug/L	10.00		106	70-130			
1,2,4-Trimethylbenzene	10.3		ug/L	10.00		103	70-130			
1,2-Dibromo-3-Chloropropane	11.5		ug/L	10.00		115	70-130			
1,2-Dibromoethane	9.82		ug/L	10.00		98	70-130			
1,2-Dichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,2-Dichloroethane	10.8		ug/L	10.00		108	70-130			
1,2-Dichloropropane	9.83		ug/L	10.00		98	70-130			
1,3,5-Trimethylbenzene	10.4		ug/L	10.00		104	70-130			
1,3-Dichlorobenzene	10.5		ug/L	10.00		105	70-130			
1,3-Dichloropropane	10.5		ug/L	10.00		105	70-130			
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,4-Dioxane - Screen	230		ug/L	200.0		115	0-332			
1-Chlorohexane	9.82		ug/L	10.00		98	70-130			
2,2-Dichloropropane	9.78		ug/L	10.00		98	70-130			
2-Butanone	52.5		ug/L	50.00		105	70-130			
2-Chlorotoluene	10.3		ug/L	10.00		103	70-130			
2-Hexanone	50.8		ug/L	50.00		102	70-130			
4-Chlorotoluene	10.0		ug/L	10.00		100	70-130			
4-Isopropyltoluene	10.6		ug/L	10.00		106	70-130			
4-Methyl-2-Pentanone	50.5		ug/L	50.00		101	70-130			
Acetone	54.5		ug/L	50.00		109	70-130			
Benzene	10.2		ug/L	10.00		102	70-130			
Bromobenzene	10.3		ug/L	10.00		103	70-130			
Bromochloromethane	9.85		ug/L	10.00		98	70-130			
Bromodichloromethane	10.2		ug/L	10.00		102	70-130			
Bromoform	8.10		ug/L	10.00		81	70-130			
Bromomethane	12.2		ug/L	10.00		122	70-130			
Carbon Disulfide	10.8		ug/L	10.00		108	70-130			
Carbon Tetrachloride	10.1		ug/L	10.00		101	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70634 - 5030B										
Chlorobenzene	10.1		ug/L	10.00		101	70-130			
Chloroethane	10.4		ug/L	10.00		104	70-130			
Chloroform	10.3		ug/L	10.00		103	70-130			
Chloromethane	11.0		ug/L	10.00		110	70-130			
cis-1,2-Dichloroethene	10.2		ug/L	10.00		102	70-130			
cis-1,3-Dichloropropene	10.1		ug/L	10.00		101	70-130			
Dibromochloromethane	10.1		ug/L	10.00		101	70-130			
Dibromomethane	10.0		ug/L	10.00		100	70-130			
Dichlorodifluoromethane	9.43		ug/L	10.00		94	70-130			
Diethyl Ether	10.2		ug/L	10.00		102	70-130			
Di-isopropyl ether	10.6		ug/L	10.00		106	70-130			
Ethyl tertiary-butyl ether	9.76		ug/L	10.00		98	70-130			
Ethylbenzene	9.99		ug/L	10.00		100	70-130			
Hexachlorobutadiene	11.7		ug/L	10.00		117	70-130			
Hexachloroethane	9.70		ug/L	10.00		97	70-130			
Isopropylbenzene	9.80		ug/L	10.00		98	70-130			
Methyl tert-Butyl Ether	10.4		ug/L	10.00		104	70-130			
Methylene Chloride	10.6		ug/L	10.00		106	70-130			
Naphthalene	10.1		ug/L	10.00		101	70-130			
n-Butylbenzene	10.5		ug/L	10.00		105	70-130			
n-Propylbenzene	10.4		ug/L	10.00		104	70-130			
sec-Butylbenzene	10.5		ug/L	10.00		105	70-130			
Styrene	9.46		ug/L	10.00		95	70-130			
tert-Butylbenzene	10.8		ug/L	10.00		108	70-130			
Tertiary-amyl methyl ether	9.51		ug/L	10.00		95	70-130			
Tetrachloroethene	9.68		ug/L	10.00		97	70-130			
Tetrahydrofuran	10.1		ug/L	10.00		101	70-130			
Toluene	9.73		ug/L	10.00		97	70-130			
trans-1,2-Dichloroethene	10.5		ug/L	10.00		105	70-130			
trans-1,3-Dichloropropene	9.48		ug/L	10.00		95	70-130			
Trichloroethene	9.88		ug/L	10.00		99	70-130			
Trichlorofluoromethane	10.7		ug/L	10.00		107	70-130			
Vinyl Acetate	10.1		ug/L	10.00		101	70-130			
Vinyl Chloride	11.0		ug/L	10.00		110	70-130			
Xylene O	10.2		ug/L	10.00		102	70-130			
Xylene P,M	20.0		ug/L	20.00		100	70-130			
Xylenes (Total)	30.2		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0267*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0250*		mg/L	*0.02500*		*100*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0239*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: Toluene-d8	*0.0254*		mg/L	*0.02500*		*102*	*70-130*			
LCS Dup										
1,1,1,2-Tetrachloroethane	9.69		ug/L	10.00		97	70-130	0.1	25	
1,1,1-Trichloroethane	10.8		ug/L	10.00		108	70-130	4	25	
1,1,2,2-Tetrachloroethane	10.8		ug/L	10.00		108	70-130	7	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70634 - 5030B										
1,1,2-Trichloroethane	10.5		ug/L	10.00		105	70-130	6	25	
1,1-Dichloroethane	10.4		ug/L	10.00		104	70-130	2	25	
1,1-Dichloroethene	11.0		ug/L	10.00		110	70-130	2	25	
1,1-Dichloropropene	11.1		ug/L	10.00		111	70-130	3	25	
1,2,3-Trichlorobenzene	10.8		ug/L	10.00		108	70-130	0.7	25	
1,2,3-Trichloropropane	10.3		ug/L	10.00		103	70-130	6	25	
1,2,4-Trichlorobenzene	10.9		ug/L	10.00		109	70-130	3	25	
1,2,4-Trimethylbenzene	10.7		ug/L	10.00		107	70-130	3	25	
1,2-Dibromo-3-Chloropropane	11.8		ug/L	10.00		118	70-130	3	25	
1,2-Dibromoethane	10.1		ug/L	10.00		101	70-130	3	25	
1,2-Dichlorobenzene	10.8		ug/L	10.00		108	70-130	6	25	
1,2-Dichloroethane	10.9		ug/L	10.00		109	70-130	2	25	
1,2-Dichloropropane	10.6		ug/L	10.00		106	70-130	8	25	
1,3,5-Trimethylbenzene	10.9		ug/L	10.00		109	70-130	6	25	
1,3-Dichlorobenzene	10.8		ug/L	10.00		108	70-130	3	25	
1,3-Dichloropropane	11.1		ug/L	10.00		111	70-130	5	25	
1,4-Dichlorobenzene	11.0		ug/L	10.00		110	70-130	8	25	
1,4-Dioxane - Screen	218		ug/L	200.0		109	0-332	5	200	
1-Chlorohexane	10.4		ug/L	10.00		104	70-130	6	25	
2,2-Dichloropropane	10.3		ug/L	10.00		103	70-130	5	25	
2-Butanone	55.2		ug/L	50.00		110	70-130	5	25	
2-Chlorotoluene	10.8		ug/L	10.00		108	70-130	4	25	
2-Hexanone	53.5		ug/L	50.00		107	70-130	5	25	
4-Chlorotoluene	10.7		ug/L	10.00		107	70-130	7	25	
4-Isopropyltoluene	11.1		ug/L	10.00		111	70-130	5	25	
4-Methyl-2-Pentanone	53.0		ug/L	50.00		106	70-130	5	25	
Acetone	53.1		ug/L	50.00		106	70-130	3	25	
Benzene	10.4		ug/L	10.00		104	70-130	2	25	
Bromobenzene	11.0		ug/L	10.00		110	70-130	7	25	
Bromochloromethane	10.6		ug/L	10.00		106	70-130	8	25	
Bromodichloromethane	10.4		ug/L	10.00		104	70-130	2	25	
Bromoform	8.43		ug/L	10.00		84	70-130	4	25	
Bromomethane	12.4		ug/L	10.00		124	70-130	1	25	
Carbon Disulfide	11.2		ug/L	10.00		112	70-130	4	25	
Carbon Tetrachloride	10.4		ug/L	10.00		104	70-130	2	25	
Chlorobenzene	10.6		ug/L	10.00		106	70-130	5	25	
Chloroethane	10.7		ug/L	10.00		107	70-130	3	25	
Chloroform	10.8		ug/L	10.00		108	70-130	5	25	
Chloromethane	11.7		ug/L	10.00		117	70-130	6	25	
cis-1,2-Dichloroethene	10.6		ug/L	10.00		106	70-130	3	25	
cis-1,3-Dichloropropene	10.5		ug/L	10.00		105	70-130	3	25	
Dibromochloromethane	10.1		ug/L	10.00		101	70-130	0.1	25	
Dibromomethane	10.3		ug/L	10.00		103	70-130	3	25	
Dichlorodifluoromethane	9.70		ug/L	10.00		97	70-130	3	25	
Diethyl Ether	10.5		ug/L	10.00		105	70-130	4	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CF70634 - 5030B										
Di-isopropyl ether	11.4		ug/L	10.00		114	70-130	8	25	
Ethyl tertiary-butyl ether	10.5		ug/L	10.00		105	70-130	7	25	
Ethylbenzene	10.2		ug/L	10.00		102	70-130	3	25	
Hexachlorobutadiene	12.4		ug/L	10.00		124	70-130	6	25	
Hexachloroethane	9.83		ug/L	10.00		98	70-130	1	25	
Isopropylbenzene	10.4		ug/L	10.00		104	70-130	5	25	
Methyl tert-Butyl Ether	10.8		ug/L	10.00		108	70-130	4	25	
Methylene Chloride	11.0		ug/L	10.00		110	70-130	4	25	
Naphthalene	10.7		ug/L	10.00		107	70-130	6	25	
n-Butylbenzene	11.0		ug/L	10.00		110	70-130	5	25	
n-Propylbenzene	11.0		ug/L	10.00		110	70-130	6	25	
sec-Butylbenzene	11.2		ug/L	10.00		112	70-130	6	25	
Styrene	9.96		ug/L	10.00		100	70-130	5	25	
tert-Butylbenzene	11.1		ug/L	10.00		111	70-130	2	25	
Tertiary-amyl methyl ether	9.81		ug/L	10.00		98	70-130	3	25	
Tetrachloroethene	10.1		ug/L	10.00		101	70-130	4	25	
Tetrahydrofuran	10.3		ug/L	10.00		103	70-130	2	25	
Toluene	10.4		ug/L	10.00		104	70-130	7	25	
trans-1,2-Dichloroethene	11.0		ug/L	10.00		110	70-130	5	25	
trans-1,3-Dichloropropene	9.76		ug/L	10.00		98	70-130	3	25	
Trichloroethene	10.7		ug/L	10.00		107	70-130	8	25	
Trichlorofluoromethane	11.0		ug/L	10.00		110	70-130	3	25	
Vinyl Acetate	10.5		ug/L	10.00		105	70-130	3	25	
Vinyl Chloride	11.3		ug/L	10.00		113	70-130	3	25	
Xylene O	10.6		ug/L	10.00		106	70-130	4	25	
Xylene P,M	20.6		ug/L	20.00		103	70-130	3	25	
Xylenes (Total)	31.2		mg/L							
Surrogate: 1,2-Dichloroethane-d4	*0.0267*		mg/L	*0.02500*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*0.0249*		mg/L	*0.02500*		*100*	*70-130*			
Surrogate: Dibromofluoromethane	*0.0241*		mg/L	*0.02500*		*96*	*70-130*			
Surrogate: Toluene-d8	*0.0250*		mg/L	*0.02500*		*100*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

Notes and Definitions

U	Analyte included in the analysis, but not detected
D	Diluted.
B+	Blank Spike recovery is above upper control limit (B+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
RL	Reporting Limit
EDL	Estimated Detection Limit

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 642 Allens Ave

ESS Laboratory Work Order: 1705838

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/find/labs/analytical/ESS.pdf

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/Labcert/Labcert.aspx

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Providence, RI - GZA/HDM

Shipped/Delivered Via: Client

ESS Project ID: 1705838
Date Received: 5/31/2017
Project Due Date: 6/7/2017
Days for Project: 5 Day

1. Air bill manifest present? No
   Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
   Temp: 5.2 Iced with: Ice
5. Was COC signed and dated by client? Yes
6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. **Were labs informed about short holds & rushes?** Yes / No / NA
10. Were any analyses received outside of hold time? Yes / No

11. Any Subcontracting needed? Yes / No
    ESS Sample IDs:
    Analysis:
    TAT:
12. Were VOAs received? Yes / No
    a. Air bubbles in aqueous VOAs? Yes / No
    b. Does methanol cover soil completely? Yes / No / NA
13. Are the samples properly preserved? Yes / No
    a. If metals preserved upon receipt: Date: Time: By:
    b. Low Level VOA vials frozen: Date: Time: By:

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / No
    a. Was there a need to contact the client? Yes / No
    Who was contacted? Date: Time: By:

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
01	137221	Yes	No	Yes	VOA Vial - HCl	HCl	
01	137222	Yes	No	Yes	VOA Vial - HCl	HCl	
01	137223	Yes	No	Yes	VOA Vial - HCl	HCl	
02	137218	Yes	No	Yes	VOA Vial - HCl	HCl	
02	137219	Yes	No	Yes	VOA Vial - HCl	HCl	
02	137220	Yes	No	Yes	VOA Vial - HCl	HCl	
03	137215	Yes	No	Yes	VOA Vial - HCl	HCl	
03	137216	Yes	No	Yes	VOA Vial - HCl	HCl	
03	137217	Yes	No	Yes	VOA Vial - HCl	HCl	
04	137212	Yes	No	Yes	VOA Vial - HCl	HCl	
04	137213	Yes	No	Yes	VOA Vial - HCl	HCl	
04	137214	Yes	No	Yes	VOA Vial - HCl	HCl	
05	137209	Yes	No	Yes	VOA Vial - HCl	HCl	
05	137210	Yes	No	Yes	VOA Vial - HCl	HCl	
05	137211	Yes	No	Yes	VOA Vial - HCl	HCl	
06	137206	Yes	No	Yes	VOA Vial - HCl	HCl	
06	137207	Yes	No	Yes	VOA Vial - HCl	HCl	
06	137208	Yes	No	Yes	VOA Vial - HCl	HCl	
07	137203	Yes	No	Yes	VOA Vial - HCl	HCl	
07	137204	Yes	No	Yes	VOA Vial - HCl	HCl	
07	137205	Yes	No	Yes	VOA Vial - HCl	HCl	
08	137200	Yes	No	Yes	VOA Vial - HCl	HCl	
08	137201	Yes	No	Yes	VOA Vial - HCl	HCl	
08	137202	Yes	No	Yes	VOA Vial - HCl	HCl	

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Providence, RI - GZA/HDM

ESS Project ID: 1705838
Date Received: 5/31/2017

09	137197	Yes	No	Yes	VOA Vial - HCl	HCl
09	137198	Yes	No	Yes	VOA Vial - HCl	HCl
09	137199	Yes	No	Yes	VOA Vial - HCl	HCl
10	137194	Yes	No	Yes	VOA Vial - HCl	HCl
10	137195	Yes	No	Yes	VOA Vial - HCl	HCl
10	137196	Yes	No	Yes	VOA Vial - HCl	HCl
11	137191	Yes	No	Yes	VOA Vial - HCl	HCl
11	137192	Yes	No	Yes	VOA Vial - HCl	HCl
11	137193	Yes	No	Yes	VOA Vial - HCl	HCl
12	137188	Yes	No	Yes	VOA Vial - HCl	HCl
12	137189	Yes	No	Yes	VOA Vial - HCl	HCl
12	137190	Yes	No	Yes	VOA Vial - HCl	HCl
13	137225	Yes	No	Yes	VOA Vial - HCl	HCl
14	137226	Yes	No	Yes	VOA Vial - HCl	HCl

2nd Review
Are barcode labels on correct containers? (Yes / No)

Completed By: _____ Date & Time: 5/31/17 1801

Reviewed By: _____ Date & Time: 5/31/17 1812

Delivered By: _____ 5/31/17 1812

ESS Laboratory
Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston RI 02910
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 105638

Turn Time: 5-Day ~~Rush~~
Regulatory State: RI
Is this project for any of the following?: ○CT RCP ○MA MCP ○RGP
Reporting Limits: GB Groundwater objectives
Electonic Deliverables: ☒Limit Checker ☒Standard Excel ☒Other (Please Specify →) PDF

Company Name	Project #	Project Name
GZA	33554.0	642 Allens Ave

Contact Person	Address
MARGARET KILPATRICK	530 BROADWAY

City	State	Zip Code	PO #
PROVIDENCE	RI	02909	

Telephone Number	FAX Number	Email Address
(401) 524-0576		margaret.kilpatrick@gza.com

ESS Lab ID	Collection Date	Collection Time	Sample Type	Sample Matrix	Sample ID	Analysis: VOC
13	5/30/17	0800	–	–	Trip Blank	X
1	~~5/30/17~~	~~0800~~ 0800 CL	Grab	Water	BD053017 CL	X
2	5/30/17	1115	↓	↓	GZ 201	X
3	5/30/17	1445			RC4-3S	X
4	5/30/17	1410			GZ 319D	X
5	5/30/17	1400			VHB20	X
6	5/30/17	1240	↓	↓	RC4 22	X
		1150			RAW3 CL	

Container Type: AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer G - Glass O-Other P-Poly S-Sterile V-Vial — 4
Container Volume: 1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other* — 7
Preservation Code: 1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAce, NaOH 9-NH4Cl 10-DI H2O 11-Other* — 2
Number of Containers per Sample: 3

Laboratory Use Only
Cooler Present: Yes
Seals Intact: N/A
Cooler Temperature: 5.2 °C ice

Sampled by: CL and SH

Comments: Please specify "Other" preservative and containers types in this space

NATIONAL GRID RATES APPLY

Relinquished by: (Signature, Date & Time)	Received By: (Signature, Date & Time)	Relinquished By: (Signature, Date & Time)	Received By: (Signature, Date & Time)
5/31/17 1700	5/31/17 1710		
Relinquished by: (Signature, Date & Time)	Received By: (Signature, Date & Time)	Relinquished By: (Signature, Date & Time)	Received By: (Signature, Date & Time)

ESS Laboratory
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185 Frances Avenue, Cranston RI 02910
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www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1705838

Turn Time (5-Day) Rush
Regulatory State R1
Is this project for any of the following?: ○CT RCP ○MA MCP ○RGP
Reporting Limits GB Groundwater Objective
Electonic Deliverables ☒Limit Checker ☒Standard Excel ☒Other (Please Specify →) TDF

Company Name	Project #	Project Name
GZA	33554.0	GZ ALLENS AVE
Contact Person	**Address**	
MARGARET KILPATRICK	530 BROADWAY	
City	**State**	**Zip Code** / **PO #**
PROVIDENCE	RI	02909
Telephone Number	**FAX Number**	**Email Address**
(401) 524-0576		margaret.kilpatrick@gza.com

ESS Lab ID	Collection Date	Collection Time	Sample Type	Sample Matrix	Sample ID	Analysis: VOC
~~13~~ 14	5/31/17	0800	–	–	Trip Blank	X
7	5/31/17	1030	Grab	Water	RCA-1	X
8	5/31/17	1045	↓	↓	GZ-304D	X
9	5/31/17	1130			GZA-301D	X
10	5/31/17	1145			RCA-12R	X
11	5/31/17	1300			GZ-309D	X
12	5/31/17	1440	↓	↓	RCA-15	X

Container Type:	AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitainer G - Glass O-Other P-Poly S-Sterile V-Vial	V
Container Volume:	1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other*	7
Preservation Code:	1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAce, NaOH 9-NH4Cl 10-DI H2O 11-Other*	2
	Number of Containers per Sample:	3

Laboratory Use Only
Cooler Present: Yes
Seals Intact: N/A
Cooler Temperature: 5.2 °C Iced

Sampled by : CL and SH
Comments: Please specify "Other" preservative and containers types in this space

Relinquished by: (Signature, Date & Time)	Received By: (Signature, Date & Time)	Relinquished By: (Signature, Date & Time)	Received By: (Signature, Date & Time)
5/31/17 1700	5/31/17 1700		
Relinquished by: (Signature, Date & Time)	Received By: (Signature, Date & Time)	Relinquished By: (Signature, Date & Time)	Received By: (Signature, Date & Time)

APPENDIX F

SUMMARY OF GROUNDWATER QA/QC RESULTS

Appendix F

Summary of Groundwater QA/QC Results
642 Allens Avenue Former MGP
Providence, Rhode Island

All sample collection, handling, storage, field screening methods, transportation, and analyses were conducted to ensure that results are accurate and representative. In addition and as described below, GZA collected and analyzed field duplicate samples and trip blanks.

Upon receipt, GZA audited the analytical data to assess whether the analytical data met the data quality objectives of the project. This audit included evaluation of QA/QC samples (*e.g.*, Lab Control Samples/Lab Control Sample Duplicates, Method Blanks, Field Blanks, and Field Duplicates) to evaluate the representativeness, comparability, completeness, precision, accuracy, and sensitivity of the analytical data.

The results of this audit by laboratory data package generally indicated the following:

Groundwater QA/QC Results

Four rounds of groundwater sampling have been included in this *Monitoring Report*: 2014, 2015, 2016 and 2017. The below sections include a summary of the QA/QC analysis that has been completed during each round.

2014 Groundwater QA/QC Results

The groundwater analytical results were generally useable to meet the project data quality objectives with the following qualifications:

- VOCs were not detected in the 7 method blanks that accompanied the groundwater samples during the laboratory analytical process, suggesting contamination during the analytical process was not an issue.

- VOCs were not detected in the 3 trip blanks that accompanied the groundwater samples, suggesting cross contamination was not an issue during groundwater sampling handling and transportation activities.

- Reporting limits are elevated for some samples because the sample was run at a dilution. Screening results were used to determine whether to run the sample at a dilution initially. The analytical results of these diluted samples (flagged with a D) were often above the reporting limit; however, these groundwater samples contained elevated concentrations of Site constituents of concern above the applicable regulatory criteria and therefore the elevated reporting limits in these samples does not affect data usability. Reporting limits which exceed the corresponding RIDEM criteria are indicated by blue text on the analytical tables.

- Some VOC laboratory QC samples did not recover within limits for bromomethane, hexachlorobutadiene, 1,4-dioxane, acetone, vinyl acetate and 1,1-dichloropropene. These are not expected to be COCs at the Site.

- Two duplicate sample sets were submitted for VOC analysis to evaluate sample reproducibility. The RPD was calculated for each compound. Elevated RPDs were noted for VOCs in one or more sample sets. Given the nature of the observed Site impacts, the variability in the results in these samples is not expected to affect data usability. This is likely due to the non-homogeneous nature of the Site, particularly the fill, and the irregular distribution of contaminants. To evaluate the data conservatively, the higher results from each sample and duplicate set should be used for decision-making purposes.

2015 Groundwater QA/QC Results

The groundwater analytical results were generally useable to meet the project data quality objectives with the following qualifications:

- Naphthalene and to a lesser extent methylene chloride and acetone were detected in the method blanks associated with laboratory work orders 1510464 and 1510463. Based on the new quantitation limits, the majority of positive results have been qualified as non-detects. A few samples were detected in excess of the new quantitation limit and were left at the laboratory reported value. The table below has been prepared to qualify the detections.

Work Order No. and Batch	Analyte and Concentration Detected in Method Blank	New Quantitation Limit	Samples Effected and Lab Reported Detected Value	Action
1510463				
Batch CJ52048	Naphthalene (0.0003 mg/L)	0.003 mg/L	GZ-301D (0.0003 mg/L) GZ-304D (0.0004 mg/L) GZ-309D (0.0003 mg/L)	Mark as ND with DL of 0.003 mg/L Mark as ND with DL of 0.003 mg/L Mark as ND with DL of 0.003 mg/L
Batch CJ52153	Naphthalene (0.0002 mg/L)	0.002 mg/L	GZ-314D (2.99 mg/L) BD101615 (3.17 mg/L)	Keep with detection of 2.99 mg/L Keep with detection of 3.17 mg/L
	Methylene Chloride (0.0004 mg/L)	0.004 mg/L	None	
Batch CJ52344	Acetone (0.0059 mg/L)	0.059 mg/L	RCA-28 (0.0113 mg/L)	Mark as ND with DL of 0.059 mg/L
	Methylene Chloride (0.0004 mg/L)	0.004 mg/L	None	
1510464				
Batch CJ52048	Naphthalene (0.0003 mg/L)	0.003 mg/L	RCA-1 (0.0008 mg/L) RCA-11 (0.0051 mg/L) RCA-12R (0.0007 mg/L)	Mark as ND with DL of 0.003 mg/L Keep with detection of 0.0051 mg/L Mark as ND with DL of 0.003 mg/L
Batch CJ52153	Naphthalene (0.0002 mg/L)	0.002 mg/L	RCA-38 (0.0001 mg/L) VHB-6 (0.0003 mg/L) BD 101515 (0.0003 mg/L)	Mark as ND with DL of 0.002 mg/L Mark as ND with DL of 0.002 mg/L Mark as ND with DL of 0.002 mg/L
	Methylene Chloride (0.0004 mg/L)	0.004 mg/L	None	
Batch CJ52344	Acetone (0.0059 mg/L)	0.059 mg/L	None	
	Methylene Chloride (0.0004 mg/L)	0.004 mg/L	None	

- VOCs were not detected in the 2 trip blanks that accompanied the groundwater samples, suggesting cross contamination was not an issue during groundwater sampling handling and transportation activities.

- Reporting limits are elevated for some samples because the sample was run at a dilution. Screening results were used to determine whether to run the sample at a dilution initially. The analytical results of these diluted samples (flagged with a D) were often above the reporting limit; however, these groundwater samples contained elevated concentrations of Site constituents of concern above the applicable regulatory criteria and therefore the elevated reporting limits in these samples does not affect data usability. Reporting limits which exceed the corresponding RIDEM criteria are indicated by blue text on the analytical tables.

- Some VOC laboratory QC samples did not recover within limits for bromomethane, 1,4-dioxane, acetone, vinyl acetate, tertiary-amyl methyl ether and methylene chloride. These are not expected to be COCs at the Site.

- Two duplicate sample sets were submitted for VOC analysis to evaluate sample reproducibility. The RPD was calculated for each compound. Elevated RPDs were noted for VOCs in one or more sample sets. Given the nature of the observed Site impacts, the variability in the results in these samples is not expected to affect data usability. This is likely due to the non-homogeneous nature of the Site, particularly the fill, and the irregular distribution of contaminants. To evaluate the data conservatively, the higher results from each sample and duplicate set should be used for decision-making purposes.

<u>2016 Groundwater QA/QC Results</u>

The groundwater analytical results were generally useable to meet the project data quality objectives with the following qualifications:

- Naphthalene and n-Butylbenzene were detected in the method blanks associated with laboratory work orders 1605607 and 1605608. Based on the new quantitation limits, the majority of positive results have been qualified as non-detects. A few samples were detected in excess of the new quantitation limit and were left at the laboratory reported value. The table below has been prepared to qualify the detections.

Work Order No. and Batch	Analyte and Concentration Detected in Method Blank	New Quantitation Limit	Samples Effected and Lab Reported Detected Value	Action
1605607				
Batch CE62341	n-Butylbenzene (0.0004 mg/L)	0.004 mg/L	VHB-6 (0.0002 mg/L)	Mark as ND with DL of 0.004 mg/L
1605608				
Batch CJ52048	Naphthalene (0.0005 mg/L)	0.005 mg/L	GZ-309D (0.0009 mg/L)	Mark as ND with DL of 0.005 mg/L

- VOCs were not detected in the trip blank that accompanied the groundwater samples, suggesting cross contamination was not an issue during groundwater sampling handling and transportation activities.

- Reporting limits are elevated for some samples because the sample was run at a dilution. Screening results were used to determine whether to run the sample at a dilution initially. The analytical results of these diluted samples (flagged

with a D) were often above the reporting limit; however, these groundwater samples contained elevated concentrations of Site constituents of concern above the applicable regulatory criteria and therefore the elevated reporting limits in these samples does not affect data usability. Reporting limits which exceed the corresponding RIDEM criteria are indicated by blue text on the analytical tables.

- Some VOC laboratory QC samples did not recover within limits for bromomethane, vinyl acetate, tertiary-amyl methyl ether, hexachloroethane, chloroethane, diethyl ether, dichlorodifluoromethane, vinyl chloride and ethyl tertiary-butyl ether. These are not expected to be COCs at the Site.

- Two duplicate sample sets were submitted for VOC analysis to evaluate sample reproducibility. The RPD was calculated for each compound. Elevated RPDs were noted for VOCs in one or more sample sets. Given the nature of the observed Site impacts, the variability in the results in these samples is not expected to affect data usability. This is likely due to the non-homogeneous nature of the Site, particularly the fill, and the irregular distribution of contaminants. To evaluate the data conservatively, the higher results from each sample and duplicate set should be used for decision-making purposes.

<u>2017 Groundwater QA/QC Results</u>

The groundwater analytical results were generally useable to meet the project data quality objectives with the following qualifications:

- VOCs were not detected in the 2 method blanks that accompanied the groundwater samples during the laboratory analytical process, suggesting contamination during the analytical process was not an issue.

- VOCs were not detected in the 2 trip blanks that accompanied the groundwater samples, suggesting cross contamination was not an issue during groundwater sampling handling and transportation activities.

- Reporting limits are elevated for some samples because the sample was run at a dilution. Screening results were used to determine whether to run the sample at a dilution initially. The analytical results of these diluted samples (flagged with a D) were often above the reporting limit; however, these groundwater samples contained elevated concentrations of Site constituents of concern above the applicable regulatory criteria and therefore the elevated reporting limits in these samples does not affect data usability. Reporting limits which exceed the corresponding RIDEM criteria are indicated by blue text on the analytical tables.

- Some VOC laboratory QC samples did not recover within limits for 2-butanone, acetone, bromomethane, diethyl ether, tetrahydrofuran and vinyl chloride. These are not expected to be COCs at the Site.

- One duplicate sample set was submitted for VOC analysis to evaluate sample reproducibility. The RPD was calculated for each compound. Elevated RPDs were not noted in the sample set.