

Proactive by Design



MONITORING REPORT - 2018

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: Monitoring Report - 2018

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 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 2018. 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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Attachment: Monitoring Report – 2018

cc: Amy Willoughby, National Grid



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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 2018. As described further herein, annual monitoring performed in 2018 consisted of approximately monthly routine shoreline observations, 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.**

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).



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 surrounding 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

Historical 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 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. In order to accommodate ongoing projects at the Site, forty-four (44) monitoring wells were decommissioned in 2016. Until these projects are complete, an interim groundwater monitoring program will be performed annually.

2.0 RESULTS OF MONITORING PROGRAM

This section presents the results of the 2018 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 2018, 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 sporadically. A summary of sheen observations proximate to the cove area is presented in **Table 1** - *Summary of Sheen Observations* – 2011 to 2018.

2.2 NAPL AND GROUNDWATER ELEVATION MONITORING

Comprehensive gauging rounds of the groundwater monitoring well network are conducted semi-annually for the presence of NAPL and collection of groundwater elevation readings. Gauging was performed in March and November 2018. **Figure 4** – *Groundwater Monitoring Wells* presents the location of all monitoring wells at the Site and **Figure 5** – *Shallow Groundwater Contours (March 2018)* presents the shallow groundwater contours at the Site. In addition, periodic NAPL measurements were collected from GZ-307S and CHES-RW-A. GZ-307S is located proximate to the northern property line near the Gas Control Building (refer to **Figure 3A**) and 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**). Historically, NAPL has been observed in GZ-307s and CHES-RW-A. 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.

An evaluation of NAPL recoverability was made at a subset of the wells where NAPL was present (GZ-307S and CHES RW-A). A LNAPL/groundwater mixture was recovered from GZ-307S om two occasions during the 2018 monitoring period, refer to **Table 5**. LNAPL was recovered from CHES-RW-A on five occasions during the 2018 monitoring period, refer to **Table 6**. A LNAPL/groundwater mixture was recovered from GZ-307S and CHES RW-A 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.

While measurable NAPL was not detected, evidence of sheen was observed on purge water from monitoring well GZA-201 during the groundwater sampling events. Refer to groundwater sampling logs in **Appendix B** - *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 and Recovery GZ-307S
- Table 6 LNAPL Gauging and Recovery CHES RW-A

2.2.1 LNAPL Observations and Recovery

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. Between November 2001 and November 2018, only fifteen (15) wells had product present at greater than or equal to 0.01 feet. These well locations are presented on **Figure 6** – *Historical NAPL Thickness* (\geq 0.01 feet) (2001-2018). The majority of LNAPL detections were less than 0.40 feet in thickness.

Measurable LNAPL was detected at only two locations in 2018: GZ-307S and CHES RW-A, as presented on **Figure 7 –** 2018 NAPL and Groundwater Analytical Data.

GZ-307S was installed in 2014 to delineate the extent of LNAPL observed along the northern property line. During 2018, LNAPL was detected in this well at thicknesses ranging from trace to 1.00 foot, refer to **Table 5.** Approximately 1 gallon of a LNAPL/groundwater mixture was recovered from this well utilizing a peristaltic pump during 2018.

CHES RW-A was installed in September 2017 during a facility project where LNAPL was detected in an excavation. During 2018, LNAPL was detected in the well at thicknesses ranging from 0.05 to 1.56 feet, refer to **Table 6**. Approximately 115 gallons of a LNAPL/groundwater mixture was recovered from this well utilizing a peristaltic pump during 2018. A sample of the LNAPL/Groundwater mixture was collected and analyzed for TPH Fingerprint analysis and specific gravity. The laboratory report for this sample is included in Appendix D. The well was decommissioned on November 20, 2018 in advance of gas line installation.¹

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 C** - *Investigation Derived Waste Shipping Records*.

2.2.2 DNAPL Observations

As indicated in **Table 2** and **Table 4**, between November 2001 and November 2018, 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. Both RCA-3 and GZ-313D were decommissioned in July 2016. DNAPL was not encountered in any remaining monitoring wells in 2018.

¹ As described below in Section 3.0, we currently anticipate reinstalling this recovery well in an adjacent area after facility projects are complete (currently anticipated to be 2022).





2.3 GROUNDWATER FLOW DIRECTION

Comprehensive elevation gauging rounds of the groundwater monitoring well network were performed in March 2018 and November 2018. 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 March 2018 gauging round were used to prepare the shallow groundwater contours presented on **Figure 5**. As expected, groundwater flow is generally to the east across the Site towards the Providence River.

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 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 thirty-one (31) groundwater monitoring wells in 2018. In March 2018, groundwater quality samples were collected from twelve (12) monitoring wells: RCA-1, RCA-12R, RCA-15, RCA-22, RCA-36, VHB-1, VHB-20, GZA-201, GZ-301D, GZ-304D, GZ-309D, and GZ-319D. These well locations were chosen to provide a representative evaluation of overall Site groundwater quality.

During the March 2018 round, groundwater samples were collected in general accordance with EPA's September 19, 2017 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 B**. 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, attached as **Appendix B**. 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 D** – *Laboratory Reports* and **Table 7** – *Summary of 2018 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 March 2018 sampling round, 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 D** and **Table 8** - *Summary of Groundwater QA/QC VOC Analytical Results*.

The following summarizes the groundwater QA/QC samples for the 2018 sampling event:

QA/QC Sample Type	Matrix	Number of Samples	Analysis / Comment
Samples	Groundwater	12	VOCs
Field Duplicates	Groundwater	1	VOCs
Trip Blanks	Groundwater	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.

The groundwater analytical results were generally useable to meet the project data quality objectives with the following qualifications:

- For Chloromethane: The Continuing Calibration %Diff/Drift was above the control limit, the Blank Spike recovery was above the upper control limit, and the Blank Spike Duplicate recovery was above the upper control limit. However, chloromethane was not detected in any of the samples, so the higher recovery limit did not affect the results.
- For trans-1,3-Dichloropropene: The Blank Spike Duplicate recovery is below the recovery limit. Trans-1,3-Dichloropropene recovery was within acceptable limits for both the Continuing Calibration sample and the Blank Spike sample. However, trans-1,3-Dichloropropene was not detected in any of Site samples, so the lower recovery limit did not affect the results.

2.6 GROUNDWATER ANALYTICAL RESULTS

Analytical data from the sampling event is summarized in **Table 7** – *Summary of Groundwater VOC Analytical Results* – *2018* and **Figure 7** – *NAPL and Groundwater Analytical Data*. The table includes 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.

Historically, groundwater quality at the Site is generally characterized by a few isolated exceedances of the GB Groundwater Objectives for benzene, ethylbenzene and naphthalene², 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. During the 2018 sampling round, only benzene was detected in excess of the GB Groundwater Objective at the Site.

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

The following sections discuss the dissolved-phased VOC analytical results for the sampling event as compared to the Method 1 (or Method 2 as appropriate) objectives by Site area³.

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 are located in this area (RCA-12R, GZ-301D, GZ-302S and GZ-302D). Two (2) monitoring wells (RCA-12R and GZ-301D) were sampled from this area during the 2018 monitoring event, as shown on **Figure 7**, with results presented in **Table 7**.

VOCs were detected in two (2/2) samples collected in the CNG Fueling Station area during the 2018 sampling round (RCA-12R and GZ-301D). The following VOCs were detected: cis-,1,2-dichloroethene, trichloroethene, and vinyl chloride. No VOCs were detected above the GB Groundwater Objectives. The following is a summary of VOCs detected in 2018:

- Cis-1,2-dichlorobenzene was detected in both samples, at concentrations ranging from 0.0012 to 0.0024 mg/L;
- Trichloroethene was detected in the sample collected from RCA-12R at a concentration of 0.0026 mg/L; and
- Vinyl chloride was detected in the sample collected from GZ-301D at a concentration of 0.0014 mg/L.

Historically, exceedances of the Method 1/2 GB Groundwater Objectives in this area have been limited to vinyl chloride in samples collected 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, vinyl chloride, cis-1,2-dichloroethene and trichloroethene are not compounds typically associated with former MGP operations. Therefore, these chlorinated VOC detections are likely due to upgradient sources.

2.6.2 <u>Natural Gas Regulation Area</u>

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. Thirteen (13) wells are located in this area (RCA-1, RCA-15, RCA-17, VHB-1, GZ-303S, GZ-303D, GZ-304D, GZ-305S, GZ-306S, GZ-307S, GZ-308S, GZ-309D, and CHES RW-A). Five (5) monitoring wells (RCA-1, RCA-15, VHB-1, GZ-304D and GZ-309D) were sampled from this area during the March 2018 monitoring event, as shown on **Figure 7**, with results presented in **Table 7**.

VOCs were detected in four (4/5) samples collected in the Natural Gas Regulation Area during the 2018 sampling round (RCA-1, RCA-15, VHB-1 and GZ-304D). The following VOCs were detected: benzene, cis-1,2-dichloroethene, isopropylbenzene,

² As noted in the following sections, vinyl chloride was also detected in a 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.

³ Note that there are no active monitoring wells located within the Holcim Cement Facility.



naphthalene, n-propylbenzene, sec-butylbenzene, and vinyl chloride. Vinyl chloride was detected in the sample collected from RCA-1 at a concentration that exceeds the Method 1/2 GB Groundwater Objective of 0.002 mg/L. The following is a summary of VOCs detected in 2018:

- Benzene was detected in the sample collected from RCA-1 at a concentration of 0.0028 mg/L;
- Cis-1,2-dichloroethene was detected in the sample collected from RCA-1 at a concentration of 0.001 mg/L;
- Isopropylbenzene was detected in the sample collected from VHB-1 at a concentration of 0.0061 mg/L;
- Naphthalene was detected in the samples collected from three (3) monitoring wells (RCA-1, RCA-15, and GZ-304D) at concentrations ranging from 0.0023 to 0.0141 mg/L;
- N-propylbenzene was detected in the sample collected from VHB-1 at a concentration of 0.002 mg/L;
- Sec-butylbenzene was detected in the sample collected from VHB-1 at a concentration of 0.0021 mg/L; and
- Vinyl chloride was detected in the sample collected from RCA-1 at a concentration of 0.0028 mg/L, in excess of the Method 1/2 GB Groundwater Objective of 0.002 mg/L.

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. As noted, vinyl chloride was detected in excess of the Method 1/2 GB Groundwater Objective in RCA-1. This monitoring well is located proximate to Allens Avenue and the property line and groundwater contours (Figure 5) indicate that groundwater flow originates upgradient. Additionally, vinyl chloride and cis-1,2-dichloroethene are not compounds typically associated with former MGP operations. Therefore, these chlorinated VOC detections 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. Fifteen (15) wells are located in this area (RCA-6, RCA-22, RCA-28, RCA-31, RCA-34, RCA-36, RCA-39, VHB-20, GZ-101, GZ-201, GZ-319D, ESS RW-3, ESS RW-4, ESS RW-5 and ESS RW-6). Five (5) monitoring wells (RCA-22, RCA-36, VHB-20, GZ-201 and GZ-319D) were sampled from this area during the March 2018 monitoring event, as shown on **Figure 7**, with results presented in **Table 7**.

VOCs were detected in four (4/5) samples collected in the Natural Gas Regulation Area during the 2018 sampling round (RCA-22, RCA-36, GZ-201 and GZ-319D). The following VOCs were detected: 1,2,4-trimethylbenzene, benzene, ethylbenzene, isopropylbenzene, naphthalene, n-butylbenzene, n-propylbenzene, sec-butylbenzene, toluene and total xylenes. Benzene was detected in the sample collected from RCA-22 at a concentration that exceeds the Method 1/2 GB Groundwater Objective of 0.014 mg/L. The following is a summary of VOCs detected in 2018:

- 1,2,4-Trimethylbenzene was detected in samples collected from three (3) monitoring wells (RCA-22, RCA-36 and GZ-201) at concentrations ranging from 0.0017 to 0.0059 mg/L;
- Benzene was detected in samples collected from three (3) monitoring wells (RCA-22, RCA-36 and GZ-319D) at concentrations ranging from 0.0359 to 1.08 mg/L, with the sample collected from RCA-22 detected in excess of the Method 1/2 GB Groundwater Objective of 0.014 mg/L;
- Ethylbenzene was detected in samples collected from two (2) monitoring wells (RCA-22 and RCA-36) at concentrations ranging from 0.0046 to 0.0458 mg/L;
- Isopropylbenzene was detected in samples collected from four (4) monitoring wells (RCA-22, RCA-36, GZ-201 and GZ-319D) at concentrations ranging from 0.0017 to 0.0427 mg/L;
- Naphthalene was detected in samples collected from four (4) monitoring wells (RCA-22, RCA-36, GZ-201 and GZ-319D) at concentrations ranging from 0.0013 to 0.418 mg/L;
- N-butylbenzene was detected in samples collected from two (2) monitoring wells (RCA-22 and GZ-201) at concentrations ranging from 0.0034 to 0.044 mg/L;



- N-propylbenzene was detected in samples collected from three (3) monitoring wells (RCA-22, RCA-36 and GZ-201) at concentrations ranging from 0.0014 to 0.0129 mg/L;
- Sec-butylbenzene was detected in samples collected from two (2) monitoring wells (RCA-22 and GZ-201) at concentrations ranging from 0.0025 to 0.0041 mg/L;
- Toluene was detected in the sample collected from RCA-22 at a concentration of 0.0012 mg/L; and
- Total xylenes were detected in samples collected from two (2) monitoring wells (RCA-22 and RCA-36) at concentrations ranging from 0.0023 to 0.0194 mg/L.

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.

2.7 INVESTIGATION DERIVED WASTE MANAGEMENT

All NAPL and groundwater generated during monitoring activities performed in 2018 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 C**.

3.0 SUMMARY AND CONCLUSIONS

As part of the annual Site monitoring events in 2018, twelve (12) monitoring wells were sampled in March 2018 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 were consistent with historical results, as summarized below:

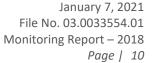
Sheen observations were consistent with historical observations and were limited to the cove in the northwestern
portion of the Site. Sheen observations were limited to several localized and immediate area of the shoreline and were
observed at various tidal stages.

NAPL Observations:

- Measurable NAPL was limited to two (2) monitoring well locations in 2018 (GZ-307S and CHES RW-A). LNAPL thicknesses was observed to range between 0.01 to and 1.56 feet at these monitoring locations and approximately 1 and 114 gallons of a LNAPL/groundwater mixture was recovered from GZ-307S and CHES RW-A, respectively. As described above, CHES RW-A was installed in 2017 and contained significant LNAPL was recovered from the well using a peristaltic pump.
- Observations of both LNAPL 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:

 Historical groundwater quality at the Site is generally characterized by a 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. The presence of naphthalene, benzene and ethylbenzene in groundwater samples is typical for former MGP sites.





- Exceedances of the Method 1/2 GB Groundwater Objectives were limited to two (2/12) monitoring well sampled during the 2018 monitoring round (RCA-1 and RCA-22). Compounds detected in excess of the GB Groundwater Objectives were limited to benzene and vinyl chloride.
- Vinyl chloride detections and/or exceedances were limited to wells located proximate to Allens Avenue and the property line. These vinyl chloride detections are likely due to upgradient sources.

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Date of	Time of	Approximate	Approximate Location of Sheen Observed	Description of Sheen Observed
Observation	Observation	Tidal Stage		· ·
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.	T
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 sheens obser	ved 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 sheens obse			
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.	,

Date of	Time of	Approximate	Approximate Location of Sheen Observed	Description of Sheen Observed
Observation	Observation	Tidal Stage	Approximate totation of Sheen observed	Description of Sheen Observed
1/4/2013	No sheen observ			
2/1/2013	No sheens obser	ved 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 obser	ved at high tide.		<u> </u>
4/30/2013	No sheens obser	ved at high tide.		
5/6/2013	No sheens obser	ved 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 obser		· · · · · · · · · · · · · · · · · · ·	•
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 obser	ved 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 obser	ved at high tide.	part of the corter	
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 obser		TWITTING GOOTH, PROXIMATE TO GILLS ITW 5	Moderate dan to bright baries and spots
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 obser		TWITTING BOOM, Near CITES IVV 4	Signt origin spots of sheen
8/28/2013	12:30		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			High wind was also noted.	0 - 12 - 22 - 24 - 24 - 24 - 24 - 24 - 24
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 obser	ved at high tide.	High wind was also noted.	1
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

1/27/2014 9:53 Low Outfall proximate to Motiva property. Slight bright bands of sheen	Date of	Time of	Approximate	Approximate Location of Sheen Observed	Description of Sheen Observed
2/25/2014 14:00 Mid - High Within the boom, between CHES RW-3 and CHES RW-5 Moderate long dull bands of sheen	Observation	Observation	Tidal Stage	''	·
3/20/2014 9:15 Mid - High Within the boom, between CHES RW-3 and CHES RW-5 Slight 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	3/20/2014		Mid - High	,	
12:40 Outfall proximate to Motiva property. Slight bright spots of sheen	4/29/2014		Mid-Low	Within the boom, between CHES RW-4 and CHES RW-5	-
No sheens observed at high tide.				, , , ,	Slight bright spots of sheen
No sheens observed at high tide.				High wind and rain were also noted.	
8/24/2014 No sheens observed at high tide. High wind was also noted. 10:25 High-Mid Within the boom, near CHES RW-3 Slight dull sheen spots and bands Within the boom, near Propane House Moderate dull to bright bands and spots Slight bands of dull sheen Strong bright bands of dull sheen Strong bright bands of sheen S					
9/24/2014 10:25 High-Mid Within the boom, near CHES RW-3 Moderate dull to bright bands and spots High-Mid 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 Strong bright bands of sheen Within the boom, near CHES RW-3 Strong bright bands of sheen 11/13/2014 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 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 Slight dull bands of sheen 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.	7/24/2014				
10/30/2014 10:30 High-Mid Within the boom, near Propane House Moderate dull to bright bands and spots	8/24/2014	No sheens obse	ved at high tide.	High wind was also noted.	
10/30/2014 7:30 Low Inside and outside boom, between CHES RW-3 and CHES RW-5 Within the boom, near CHES RW-3 Strong bright bands of dull sheen Strong bright bands of dull sheen Strong bright bands of sheen Strong bright bands of sheen Strong bright bands of dull sheen Stight dull bands of sheen Moderate dull spots of sheen Stight dull bands of sheen	0/24/2014	10:25	⊔igh Mid	Within the boom, near CHES RW-3	Slight dull sheen spots and bands
10/30/2014 7:30 Low Within the boom, near CHES RW-3 Strong bright bands of sheen	9/24/2014	10:30	High-ivilu	Within the boom, near Propane House	Moderate dull to bright bands and spots
Within the boom, near CHES RW-3 Strong bright bands of sheen	10/20/2014	7.20	Love	Inside and outside boom, between CHES RW-3 and CHES RW-5	Slight bands of dull sheen
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 10/14/2015 No sheens observed at high tide. 11/17/2015 No sheens observed at high tide.	10/30/2014	7:30	LOW	Within the boom, near CHES RW-3	Strong bright 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 10/14/2015 No sheens observed at high tide. 11/17/2015 No sheens observed at high tide.	11/13/2014	No sheens obse	ved at high 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 10/14/2015 No sheens observed at high tide. 11/17/2015 No sheens observed at high tide.	12/12/2014	14:00	Mid	Within the boom, near CHES RW-3	Slight dull bands of sheen
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 10/14/2015 No sheens observed at high tide. 11/17/2015 No sheens observed at high tide.	1/29/2015	No sheens obse	ved at mid tide.		•
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 10/14/2015 No sheens observed at high tide. 11/17/2015 No sheens observed at high tide.	2/25/2015	No sheens obse	ved. Cove compl	etely frozen over.	
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 10/14/2015 No sheens observed at high tide. 11/17/2015 No sheens observed at high tide.	3/23/2015	No sheens obse	ved at high tide.	High wind was also noted.	
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.	4/9/2015	No sheens obse	ved at high tide.	High wind was also noted.	
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.	5/22/2015	7:43	Low	Within the boom, near CHES RW-3	Very slight bright spots
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 10/14/2015 No sheens observed at high tide. 11/17/2015 No sheens observed at high tide.	6/17/2015	No sheens obse	ved at mid tide.	High wind was also noted.	
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.	7/17/2015	11:29	Mid	Within the boom, between CHES RW-3 and RCA-5	Moderate to bright 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.	8/28/2015	12:20	Low	Inside and outside boom, between CHES RW-3 and CHES RW-5	Moderate dull spots of sheen
10/14/2015 No sheens observed at high tide. 11/17/2015 No sheens observed at high tide.	9/16/2015	9:40	Mid-High		Slight dull bands of sheen
11/17/2015 No sheens observed at high tide.	10/14/2015	No sheens obse	ved at high tide.		
12/30/2015 No sheeps observed at high tide.		No sheens obse	ved at high tide.		
TE/OU/EDED 110 01100110 00001 for at tilbu tides	12/30/2015	No sheens obse	ved at high tide.		
1/29/2016 No sheens observed at mid tide.	1/29/2016	No sheens obse	ved at mid tide.		
2/22/2016 12:00 Mid-High Within Boom near CHES RW-3 Slight sheen spots	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 sl	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		3:30			
5/19/2016 11:00 Mid-Low Within Boom near CHES RW-3 Dull plates of sheen		11:00	Mid-Low	Within Boom near CHES RW-3	
6/10/2016 No sheens observed at mid-high tide.					• '
7/26/2016 10:00 Low Within Boom near CHES RW-3 Slight sheen					Slight sheen
8/30/2016 13:00 Low Inside and outside boom, between CHES RW-3 and CHES RW-5 Plates of sheen			Low		
9/16/2016 9:00 High Within Boom Slight Sheen (Streaks)			High		
10/30/2016 No sheens observed					
11/30/2016 11:00 Mid Within Boom near CHES RW-3 Platlets of sheen				Within Boom near CHES RW-3	Platlets of sheen
12/13/2016 11:45 No sheen observed at low tide					

Date of Observation	Time of Observation	Approximate Tidal Stage	Approximate Location of Sheen Observed	Description of Sheen Observed
1/31/2017	No sheens obser	ved at mid tide		-
2/27/2017	9:00	Mid-Low	Within Boom near CHES RW-3	Streaks of sheen
3/24/2017	No sheens obser	ved at high tide		•
4/28/2017	No sheens obser	ved at high tide		
5/5/2017	No sheens obser	ved at high tide		
6/30/2017	No sheens obser	ved at high tide		
7/27/2017	No sheens obser	ved 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 obser	ved at high tide		
11/21/2017	No sheens obser	ved at high tide		
12/21/2017	No sheens obser	ved at low tide		
1/24/2018	13:00	No sheens obser	rved at high tide	
2/21/2018	12:00	No sheens obser	rved at high tide	
3/20/2018	11:00	No sheens obser	rved at high tide	
4/26/2018	7:00	No sheens obser	rved at high tide	
5/15/2018	14:00	No sheens obser	rved at low tide	
6/28/2018	14:00	No sheens obser	rved at low tide	
7/30/2018	13:00	Mid	Within Boom near former well CHES RW-3	Some streaks of sheen, dull to bright plates
8/30/2018	9:30	Mid-high	Within Boom near former well CHES RW-4	Dull streaks of sheen
10/1/2018	7:00	Low	Within Boom near former well CHES RW-5	Bright streaks of sheen
10/30/2018	10:30	No sheens obser	rved at mid tide	
11/14/2018	7:00	No sheens obser	rved at high tide	
12/19/2018	11:15	Low tide	No sheens observed	

- 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.
- 17. Boom was damaged during a storm in 2018. Absorbent boom replaced 4/12/18.
- 18. Absorbent boom replaced 10/25/18.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eved Elevation	15		Wel	I Installation De	otails							Dec	ember 2009)						li	ıne 2010			
C:A-			ĺ			1		1		Damas of INIADI	Range of DNAPL		Depth to	Depth to		GW	LNAPL	DNAPL	Corrected		Depth to	Depth to			LNAPL	DNAPL	Corrected
Site Area	Well ID	Top of Casing Elevation	Top of PVC Elevation	Grade Elevation	Type of Well	Well Depth	Date of	Measured Well	Screened Interval	Range of LNAPL Observed (feet)	Observed	Depth to	Water (ft)	DNAPL (ft)	Depth (ft)	Elevation	Thickness	Thickness	Groundwater	Depth to	Water (ft)	DNAPL (ft)	Depth (ft)	GW Elevation	Thickness	Thickness	Groundwater
Arcu		(Feet)	(Feet)	(Feet)	Type of Well	Modifier	Installation	Depth (feet bgs)	(feet bgs)	Observed (rect)	(feet)	LNAPL (ft)				(feet)	(feet)	(feet)	Elevation (feet)	LNAPL (ft)				(feet)	(feet)	(feet)	Elevation (feet)
		(,	(,	(1.554)					(1000.00)															(,			
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP NP	NP							1				T	1				
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	-	5.72	-	14.73	6.10	NP	NP	6.10	-	6.67	-	15.39	5.15	NP	NP	5.15
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace	-	8.01	-	17.5	3.43	NP	NP	3.43	-	9.45	-	17.41	1.99	NP	NP	1.99
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	-	4.63	-	14.50	6.98	NP	NP	6.98	-	6.51	-	14.52	5.10	NP	NP	5.10
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 10.55	13.44	NS 40.55	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP																
NG NG	VHB-1 VHB-3	10.55 11.84	10.33 11.96	10.55 9.76	Roadbox	Shallow	1/15/2002 1/14/2002	11.72 7.90	2 - 12 2 - 10	NP trace	NP NP																
NG	VHB-3	12.91	12.93	10.25	Standpipe Standpipe	Shallow Shallow	1/14/2002	9.77	2 - 10	NP	NP NP	_	6.03	_	11.6	6.90	NP	NP	6.90								
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP NP	NP		8.02		14.78	5.71	NP	NP	5.71	_	9.06	+	14.85	4.67	NP	NP	4.67
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP		0.02		14.70	3.71	141	- '	5.71	_	11.62	_	17.04	7.48	NP	NP	7.48
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP	-	6.13	-	14.7	9.22	NP	NP	9.22	-	6.37	-	15.0	8.98	NP	NP	8.98
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP	trace	7.18	-	16.51	6.47	trace	NP	6.47	-	8.61	-	16.53	5.04	NP	NP	5.04
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	CHES-RWA	NS	NS	NS	Recovery Well	Shallow	2017	9.80	Unknown	0.30 - 0.89	NP																
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP										4.50		44.40	0.54			0.54
NG NG	VHB-8R GZ-303S	14.85 13.78	14.06 13.28	12.60 13.78	Standpipe Roadbox	Shallow	6/4/2014 5/28/2014	12.29 15.70	2 - 12 5 - 15	NP NP	NP NP									-	4.52	 -	11.19	9.54	NP	NP	9.54
NG	GZ-3033 GZ-303D	13.75	13.13	13.75	Roadbox	Shallow Deep	6/3/2014	30.32	20 - 30	NP NP	NP NP																
NG	GZ-303D	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 - 0.36	NP							İ		Ì		1					
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											1					
NG NG	GZ-318D GZ-320D	13.59 19.25	13.48 18.94	11.13 16.03	Standpipe Standpipe	Deep	6/2/2014 6/5/2014	34.15 30.19	20 - 30 20 - 30	NP NP	NP NP							 				 	 				
NG	GZ-320D GZ-401	15.16	14.92	12.01	Standpipe	Deep Shallow	11/2/2015	16.25	5 - 15	NP NP	NP NP							 				1					
NG	GZ-401 GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP NP	NP							-				+					
											NP							 		1		+					
NG	Unknown-2	10.90	10.87	11.10	Standpipe	Shallow	Unknown	10.95	Unknown	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.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

Site	-						I Installation De								Dec	ember 2009							JL	ıne 2010			
Area	Well ID	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)		Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	Depth to LNAPL (ft)	-	Depth to DNAPL (ft)		GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	•	Depth to DNAPL (ft)	Denth (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																
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																
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																
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP																
LNG	RCA-31	15.19	14.98	12.78	Standpipe	Shallow	2/23/1996	13.30	5-15	NP	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																
	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP																
	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP									-							
	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP									-							
	ESS RW-1	NS	NS	NS NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP																
	ESS RW-2	NS 15.00	NS 16.00	NS 12.00	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP																
	ESS RW-3	16.03	16.03	12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP	NP																
	ESS RW-4	15.78 16.14	15.78 16.14	12.69 12.86	Recovery Well	Shallow	2002 2002	12.06 13.85	Unknown	NP	NP NP									-							
	ESS RW-5 ESS RW-6	17.52	17.52	1	Recovery Well	Shallow Shallow	2002	14.33	Unknown Unknown	NP NP	NP NP							 							-		
LNG	GZ-101	13.43	13.10	14.65 13.43	Recovery Well	Shallow	4/29/2004	20.21	10 - 20	NP NP	NP NP							 							-		
	GZ-101 GZ-201	9.83	9.53	7.53	Roadbox Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP NP	NP NP									+							
	GZ-201 GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP NP	NP NP									 							
LNG	GZ-204A GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP NP	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 NP									 							
	GZ-314S	14.15	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP									 							
	GZ-3143 GZ-314D	14.33	14.11	11.13	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP NP	NP									1							
	GZ-314D GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP									 							
_	GZ-313D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP														 		

Notes

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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	ved Elevation	ns		Wel	II Installation De	etails							Janu	uary 2011								July 2011			
Site Area	Well ID	Top of Casing Elevation	Top of PVC	Grade Elevation	Type of Well	Well Depth	Date of	Measured Well	Screened Interval	Range of LNAPL Observed (feet)	Range of DNAPL Observed		Water (ft)	Depth to DNAPL (ft)		GW Elevation	LNAPL Thickness	DNAPL Thickness	Corrected Groundwater		•	Depth to) DNAPL (ft)		GW Elevation	LNAPL Thickness	DNAPL Thickness	Corrected Groundwater
		(Feet)	(Feet)	(Feet)	,,	Modifier	Installation	Depth (feet bgs)	(feet bgs)		(feet)	LNAPL (ft)				(feet)	(feet)	(feet)	Elevation (feet)	LNAPL (ft)			(ft)	(feet)	(feet)	(feet)	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 NG	RCA-14	13.09	12.75 14.06	11.06	Standpipe	Shallow	9/12/1994	13.61 15.97	5 - 15 4 - 14	NP NP	NP NP									-	8.4 8.11	-	15.28 17.95	4.35	NP NP	NP NP	4.35 5.95
NG	RCA-15 RCA-17	NS NS	13.44	NS NS	Standpipe Standpipe	Shallow Shallow	12/8/1994 12/9/1994	12.80	4 - 14	NP NP	NP NP									-	7.33	-	14.75	5.95 6.11	NP NP	NP NP	6.11
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	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 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	CHES-RWA	NS	NS	NS	Recovery Well	Shallow	2017	9.80	Unknown	0.30 - 0.89	NP																
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 NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP NP	NP NP																
NG	GZ-305S GZ-306S	11.84 11.90	11.64 11.49	11.84 11.90	Roadbox Roadbox	Shallow Shallow	5/22/2014 5/22/2014	14.35 15.31	5 - 15 5 - 15	NP NP	NP NP											1					
NG	GZ-306S GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.36	NP NP											1					
NG	GZ-3073	9.71	8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP NP											-					
NG	GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP	NP NP																
NG	GZ-309D GZ-311D	13.04	12.82	10.03	Standpipe	Deep	5/21/2014	29.91	20 - 30	NP	NP				 						 	+		 			
NG	GZ-3115	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP	NP										t	†		t			
NG	GZ-312D	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP										t	†		t			
NG	GZ-313D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP											<u> </u>					
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP										1	1		1			
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				ĺ												
NG	Unknown-2	10.90	10.87	11.10	Standpipe	Shallow	Unknown	10.95	Unknown	NP	NP																

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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eyed Elevation	ns		We	Il Installation De	etails							Janı	uary 2011							J	uly 2011			
Site			Í						6	Range of LNAPL	Range of DNAPL		Depth to	Depth to	Total Well	, C11/	LNAPL	DNAPL	Corrected		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected
Area	Well ID	Top of Casing Elevation	Elevation	Grade Elevation	Type of Well	Well Depth	Date of	Measured Well	Screened Interval	Observed (feet)	Observed		Water (ft)	DNAPL (ft)	Depth (ft)	GW Elevation	Thickness	Thickness	Groundwater	Depth to	Water (ft)	DNAPL (ft)	Depth	Elevation	Thickness	Thickness	Groundwater
Aicu		(Feet)	(Feet)	(Feet)	Type of Well	Modifier	Installation	Depth (feet bgs)	(feet bgs)	observed (reet)	(feet)	LNAPL (ft)				(feet)	(feet)	(feet)	Elevation (feet)	LNAPL (ft)			(ft)	(feet)	(feet)	(feet)	Elevation (feet)
		(. 551)	(. cc.,	(. cc.,					(1001 280)		,					(,											
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP									-	10.04	- 1	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-31	15.19	14.98	12.78	Standpipe	Shallow	2/23/1996	13.30	5-15	NP	NP																
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	NS NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP									-	5.11	-	8.46	NS	NP	NP	NS NG
LNG	ESS RW-2	NS 16.02	NS 46.02	NS 12.00	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP						1			-	7.62	-	11.07	NS 2.27	NP	NP	NS 2.27
LNG	ESS RW-3 ESS RW-4	16.03 15.78	16.03	12.99 12.69	Recovery Well	Shallow Shallow	2002	13.94 12.06	Unknown	NP NP	NP NP						1			-	12.76 12.53	-	16.8	3.27	NP NP	NP NP	3.27 3.25
LNG	ESS RW-4 ESS RW-5	16.14	15.78 16.14	12.86	Recovery Well Recovery Well	Shallow	2002	13.85	Unknown	NP NP	NP NP									-	12.53	-	14.95 17	3.25 3.32	NP NP	NP NP	3.32
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP NP	NP						1				14.27	_	17.09	3.25	NP	NP NP	3.25
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP NP	NP						1				14.27	_	17.03	3.23	INF	INF	3.23
LNG	GZ-101 GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP	NP																
LNG	GZ-201	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	NP								1	_	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										0.01		27.7.5	3.00			5.55
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								1								
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP						1		1		1						
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP								1								

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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Curve	eved Elevation	25		Wel	II Installation De	tails							Λι	ugust 2011							Fol	oruary 2012			
		Surve	eyeu Elevatioi	15		- vve	ii iiistaiiatioii De	talis			Range of		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected
Site Area	Well ID	Top of Casing		Grade	T 634/-11	Well Depth	Date of	Measured Well	Screened	Range of LNAPL	DNAPL	Depth to	-	DNAPL (ft)	Depth	Elevation	Thickness	Thickness	Groundwater	Depth to		DNAPL (ft)		Elevation	Thickness	Thickness	Groundwater
Area		Elevation (Feet)	Elevation (Feet)	Elevation (Feet)	Type of Well	Modifier	Installation	Depth (feet bgs)	(feet bgs)	Observed (feet)	Observed (feet)	LNAPL (ft)			(ft)	(feet)	(feet)	(feet)	Elevation (feet)	LNAPL (ft)		(ft)	(feet)	(feet)	(feet)	Elevation (feet)
		(reet)	(reet)	(reet)					(leet bgs)		(ieet)																
0110	DOI 100	1 47.07	1 47.00	47.07	n 11		5 /20 /2014	1 45.04	l = 4=					T		1	1	T			T	1	I	1			
CNG	RCA-12R GZ-301D	17.87 17.74	17.33 17.33	17.87 17.74	Roadbox Roadbox	Shallow	5/30/2014 5/30/2014	15.24 30.11	5 - 15 20 - 30	NP NP	NP NP																
CNG	GZ-301D GZ-302S	16.97	16.67	16.97	Roadbox	Deep Shallow	6/3/2014	15.00	5 - 15	NP NP	NP NP																
CNG	GZ-3023	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP 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 NG	CHES RW-1 CHES RW-2	12.94	12.94 14.27	11.06	Recovery Well	Shallow	2002 2002	9.42 13.12	Unknown Unknown	NP	NP	-	7.22 10.41	-	10.42 10.24	5.72	NP NP	NP NP	5.72 3.86	-	6.3 10.24	-	10.55	6.64	NP	NP NP	6.64 4.03
NG	CHES-RWA	14.27 NS	NS	11.09 NS	Recovery Well Recovery Well	Shallow Shallow	2002	9.80	Unknown	trace 0.30 - 0.89	NP NP	-	10.41	-	10.24	3.86	NP	NP	3.80	trace	10.24	-	10.35	4.03	trace	NP	4.03
NG	U-1	NS 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		3.7.		11.5	0.02	- "	1	0.02		3		11.0	0.00			0.00
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 - 0.36	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					1				ļ							
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					-	-			ļ				-			
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP ND	NP NP					-	-			-				-			
NG NG	GZ-320D GZ-401	19.25 15.16	18.94 14.92	16.03 12.01	Standpipe Standpipe	Deep Shallow	6/5/2014 11/2/2015	30.19 16.25	20 - 30 5 - 15	NP NP	NP NP					-	-			-				-			
NG	GZ-401 GZ-403	14.52	14.92	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP NP	NP NP					 	 			 				 			
NG	Unknown-2	10.90	10.87	11.43	Standpipe	Shallow	Unknown	10.95	Unknown	NP NP	NP NP					 	 							-			
NG	OTIKITOWIT-Z	10.50	10.07	11.10	Junupipe	Juanow	OHKHOWH	10.53	OHKHOWII	INF	INF	L		l		1	1	L	1	1	1	1	l	1			

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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eyed Elevation	ıs		Wel	Il Installation De	etails							A	ugust 2011							Feb	ruary 2012			
Site		Top of Casing	Top of PVC	Grade					Screened	Range of LNAPL	Range of DNAPL		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected
Area	Well ID	Elevation (Feet)	Elevation (Feet)	Elevation (Feet)	Type of Well	Well Depth Modifier	Date of Installation	Measured Well Depth (feet bgs)		Observed (feet)	Observed (feet)	Depth to LNAPL (ft)	Water (ft)	DNAPL (ft)	Depth (ft)	Elevation (feet)	Thickness (feet)	Thickness (feet)	Groundwater Elevation (feet)	Depth to LNAPL (ft)	Water (f	DNAPL (ft)	Depth (ft)	Elevation (feet)	Thickness (feet)	Thickness (feet)	Groundwater Elevation (feet)
		(,,,,,	(,	(,					(1000.00)																		
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-31	15.19	14.98	12.78	Standpipe	Shallow	2/23/1996	13.30	5-15	NP	NP																
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 NP	-	11.9	-	13.8	2.42	NP NP	NP NP	2.42	-	12.3	-	13.8	2.02	NP	NP NP	2.02
LNG	ESS RW-1 ESS RW-2	NS NS	NS NS	NS NS	Recovery Well	Shallow Shallow	2002 2002	6.70 9.32	Unknown Unknown	NP NP	NP NP	-	6.71 8.24	-	8.46 11.07	NS NS	NP NP	NP NP	NS NS	-	5.41 8.35	-	8.6 11.2	NS NS	NP NP	NP NP	NS NS
LNG	ESS RW-3	16.03	16.03	12.99	Recovery Well Recovery Well	Shallow	2002	13.94	Unknown	NP NP	NP NP	-	13.25	-	16.8	2.78	NP NP	NP NP	2.78	-	13.46	-	16.81	2.57	NP	NP NP	2.57
LNG	ESS RW-4	15.78	15.78	12.69	Recovery Well	Shallow	2002	12.06	Unknown	NP NP	NP	-	13.02		14.95	2.76	NP	NP	2.76	-	13.40		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		27.77		27.05	2.73		.41	2.75		14.55		17.12	2.55			2.55
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																

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.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Curv	eved Elevation	16		Wel	l Installation De	tails								July 2012							Fol	oruary 2013			
			ĺ			VVE	i ilistaliation De	talis			Range of		Depth to	Depth to	Total Well		LNAPL	DNAPL	Corrected		Depth to	Depth to	Total Well	GW GW	LNAPL	DNAPL	Corrected
Site Area	Well ID	Top of Casing		Grade	T 634/-11	Well Depth	Date of	Measured Well		Range of LNAPL	DNAPL	Depth to	•	DNAPL (ft)	Depth	Elevation	Thickness	Thickness	Groundwater	Depth to		DNAPL (ft)		Elevation	Thickness	Thickness	Groundwater
Alea		Elevation (Feet)	Elevation (Feet)	Elevation (Feet)	Type of Well	Modifier	Installation	Depth (feet bgs)	(feet bgs)	Observed (feet)	Observed (feet)	LNAPL (ft)			(ft)	(feet)	(feet)	(feet)	Elevation (feet)	LNAPL (ft)			(ft)	(feet)	(feet)	(feet)	Elevation (feet)
		(reet)	(reet)	(reet)					(leet bgs)		(1001)																
CNC	DC4 42D	47.07	47.22	47.07	Dandhau	Challan	E /20 /204 4	45.24	I = 45	ND I	ND			I		1	I	1			1	T		1			
CNG	RCA-12R GZ-301D	17.87 17.74	17.33 17.33	17.87 17.74	Roadbox Roadbox	Shallow Deep	5/30/2014 5/30/2014	15.24 30.11	5 - 15 20 - 30	NP NP	NP NP																
CNG	GZ-301D	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP NP	NP NP																
CNG	GZ-3023	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	NP NP	4.19	- 0.21	8.88	-	17.8 17.8	4.14	NP 0.01	NP NP	4.14 4.58
NG NG	VHB-23 CHES RW-1	12.98 12.94	12.80 12.94	11.37 11.06	Standpipe Recovery Well	Shallow Shallow	1/29/2003 2002	16.37 9.42	6 - 16 Unknown	trace - 0.05 NP	NP NP	-	9.44 7.89	-	17.85 10.5	3.36 5.05	NP NP	NP NP	3.36 5.05	8.21	8.22 6.86	-	10.3	4.58 6.08	0.01 NP	NP NP	6.08
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP NP		10.57		10.5	3.70	NP NP	NP NP	3.70	trace	10.42	_	16.3	3.85	trace	NP NP	3.85
NG	CHES-RWA	NS	NS	NS	Recovery Well	Shallow	2017	9.80	Unknown	0.30 - 0.89	NP		10.57		10.01	3.70	INI	141	3.70	trace	10.42		10.5	3.03	trace	141	3.63
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 - 0.36	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					1		1			1	1		-			
NG	GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP NB	NP					+		1				1		-			
NG NG	GZ-312D GZ-313D	10.95 11.79	10.79 11.64	8.55 9.78	Standpipe Standpipe	Deep Deep	5/23/2014 5/27/2014	30.51 36.34	20 - 30 26 - 36	NP NP	NP NP					-		-						-			
NG	GZ-313D GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP NP	NP NP					+		+						 			
NG	GZ-318D GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP NP	NP NP					 		 						-			
NG	GZ-320D GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP NP	NP			1		+		+				1		 			
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP					†		†						t			
NG	Unknown-2	10.90	10.87		Standpipe	Shallow	Unknown	10.95	Unknown	NP	NP					†		†				<u> </u>		t			
				11.10																							

Notes

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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.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eyed Elevation	15		We	II Installation De	otails								July 2012							Feb	ruary 2013			
		Suive	l Lievation			1		1		I	Range of		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected
Site	Well ID	Top of Casing	Top of PVC	Grade		Well Depth	Date of	Measured Well	Screened	Range of LNAPL	DNAPL	Depth to	Water (ft)		Depth	Elevation	Thickness	Thickness	Groundwater	Depth to		DNAPL (ft)	Depth	Elevation	Thickness	Thickness	Groundwater
Area		Elevation	Elevation	Elevation	Type of Well	Modifier	Installation	Depth (feet bgs)	Interval	Observed (feet)	Observed	LNAPL (ft)		(10,	(ft)	(feet)	(feet)	(feet)	Elevation (feet)	LNAPL (ft)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(ft)	(feet)	(feet)	(feet)	Elevation (feet)
		(Feet)	(Feet)	(Feet)				((feet bgs)		(feet)				(,	(,	(,	(,					(,	(,	(,	(,	(,
		1						'		1			1	1												1	
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-31	15.19	14.98	12.78	Standpipe	Shallow	2/23/1996	13.30	5-15	NP	NP																
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	ļ															
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	ļ		ļ													
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	1						<u> </u>									

Notes

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Elevations are relative to NAVD88 NP - Indicates No Product observed.

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Blanks indicate no measurement collected on that particular day.

Potentiometric elevations for wells exhibiting LNAPL include 0.85 correction factor.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eved Elevation	15		Wel	II Installation De	etails							Nov	vember 2013	•							June 2014			
C:A-			ĺ			1				Donne of INIADI	Range of DNAPL		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected
Site Area	Well ID	Top of Casing Elevation	Top of PVC Elevation	Grade Elevation	Type of Well	Well Depth	Date of	Measured Well	Screened Interval	Range of LNAPL Observed (feet)	Observed	Depth to	Water (ft	DNAPL (ft)	Depth	Elevation	Thickness	Thickness	Groundwater	Depth to	Water (ft)	DNAPL (ft	Depth (ft)	Elevation	Thickness	Thickness	Groundwater
Alea		(Feet)	(Feet)	(Feet)	Type of Well	Modifier	Installation	Depth (feet bgs)	(feet bgs)	Observed (leet)	(feet)	LNAPL (ft)			(ft)	(feet)	(feet)	(feet)	Elevation (feet)	LNAPL (ft)				(feet)	(feet)	(feet)	Elevation (feet)
		(reet)	(reet)	(reet)					(leet bgs)		(1000)																
CN1C	201 122	17.07	17.00	47.07		T or II	= /20/2014	1 45.04		I un I	***		1	T	I	1	1		T				1 44 - 1	7.54	110		1
CNG	RCA-12R GZ-301D	17.87 17.74	17.33 17.33	17.87 17.74	Roadbox Roadbox	Shallow Deep	5/30/2014 5/30/2014	15.24 30.11	5 - 15 20 - 30	NP NP	NP NP									-	9.82 10.87	-	14.7 29.7	7.51 6.46	NP NP	NP NP	7.51 6.46
CNG	GZ-301D GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP NP	NP NP									-	9.42	-	14.7	7.25	NP NP	NP NP	7.25
CNG	GZ-3023	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP 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			I.		hed - can not						W			- can not gauge		1
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 2002	9.42	Unknown	NP	NP	-	8.97	-	10.5	3.97	NP	NP NP	3.97	-	7.13 9.98	-	11.3	5.81 4.29	NP NP	NP	5.81 4.29
NG NG	CHES RW-2 CHES-RWA	14.27 NS	14.27 NS	11.09 NS	Recovery Well Recovery Well	Shallow Shallow	2002	13.12 9.80	Unknown Unknown	trace 0.30 - 0.89	NP 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 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	NP		3.76		5.5	3.03	INI	141	3.03	_	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 - 0.36	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					ļ				-	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					1				-	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					1				-	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	1				1											1
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP	1		-		1							1				1
NG	Unknown-2	10.90	10.87	11.10	Standpipe	Shallow	Unknown	10.95	Unknown	NP	NP		l				l										

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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eved Elevation	ns		Wel	Il Installation De	tails							Nov	vember 2013	3							June 2014			
Site Area	Well ID	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)	Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	Depth to	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		Depth to	Total Well) Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
		(Feet)	(reet)	(Feet)					(reet bgs)		(ieet)																
						T	1 - /= /	T .= .=		T T							1	1	1								
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 NB	NP	-	10.61	-	17.2	0.05	NP	NP	0.05		0.00		Well covered			ND	T 2.00
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP	- 42.26	10.27	-	11.03	2.68	NP	NP	2.68	- 44.04	9.09	-	14.2	3.86	NP 0.01	NP	3.86
LNG	RCA-21	NS NM	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP NP	12.26	14.17 10.3	-	14.35	-0.45	1.91	NP NP	1.17	11.04	11.95	-	14.63	1.77	0.91	NP	2.54
LNG	RCA-22 RCA-28		12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP NP	NP NP	-	12.46	-	13.05	2.62	NP NP	NP NP	2.62	-	9.75 11.84	-	13 17.8	3.17	NP NP	NP NP	3.17 3.54
LNG	RCA-29	NS NS	15.38 13.45	13.01 NS	Standpipe Standpipe	Shallow Shallow	1/17/1995 2/13/1996	15.43 12.95	5 - 15 2 - 12	trace - 0.17	NP NP	-	11.79	-	17.48 14.35	2.92 1.66	NP NP	NP NP	1.66	11.38	11.84	-	14.95	3.54 1.90	0.17	NP NP	2.04
LNG	RCA-29	15.19	14.98	12.78	Standpipe	Shallow	2/13/1996	13.30	5-15	NP	NP NP	+ -	11.79	-	14.55	1.00	INP	INP	1.00	11.50	11.55	-	14.95	1.90	0.17	INF	2.04
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP NP	NP	-	10.39		12.8	1.77	NP	NP	1.77		9.16		12.98	3.00	NP	NP	3.00
LNG	RCA-32	NS NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP 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	<u> </u>	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	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												1				
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					1				-	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					1				-	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

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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.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eved Elevation	ns		Wel	II Installation De	etails								July 2, 2014								uly 23, 2014	,		
C:A-			ĺ							Dance of INADI	Range of DNAPL		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected		Depth to	Depth to	Total Well	GW	LNAPL	DNAPL	Corrected
Site Area	Well ID	Top of Casing	Top of PVC	Grade Elevation	Type of Well	Well Depth	Date of	Measured Well	Screened Interval	Range of LNAPL Observed (feet)	Observed	Depth to	Water (ft)	DNAPL (ft)	Depth (ft)	Elevation	Thickness	Thickness	Groundwater	Depth to	Water (ft)	DNAPL (ft	Depth (ft)	Elevation	Thickness	Thickness	Groundwater
Aica		Elevation (Feet)	Elevation (Feet)	(Feet)	Type of Well	Modifier	Installation	Depth (feet bgs)	(feet bgs)	Observed (reet)	(feet)	LNAPL (ft)				(feet)	(feet)	(feet)	Elevation (feet)	LNAPL (ft))			(feet)	(feet)	(feet)	Elevation (feet)
		(reet)	(reet)	(1001)					(leet bgs)		(,																
CNG	RCA-12R	17.87	17.33	17.87	Roadbox	Shallow	5/30/2014	15.24	5 - 15	NP I	NP		10.06	T -	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	NP NP	<u> </u>	10.05	-	29.6	7.27	NP NP	NP NP	7.28	-	10.12	-	29.6	7.23	NP NP	NP NP	7.23
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	T	0.07		10.5	4.50	T	NB	4.50	0.44	0.40		40.5	1.16	0.00	NB	4.22
NG NG	VHB-21 VHB-22	13.80 13.32	13.65 13.02	11.09 11.21	Standpipe	Shallow	1/28/2003 1/28/2003	15.94 15.49	6 - 16	trace - 0.08 0.01 - 0.04	NP NP	Trace	9.07	-	18.5	4.58	Trace	NP	4.58	9.41	9.49	<u> </u>	18.5	4.16	0.08	NP	4.22
NG	VHB-22 VHB-23	12.98	12.80	11.37	Standpipe Standpipe	Shallow Shallow	1/28/2003	16.37	6 - 16 6 - 16	trace - 0.05	NP NP												+				
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP												1				
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP																
NG	CHES-RWA	NS	NS	NS	Recovery Well	Shallow	2017	9.80	Unknown	0.30 - 0.89	NP												1				
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 - 0.36	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 ND	NP	-	4.11	-	29.9	5.72	NP ND	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 ND	NP	-	7.59	-	32.68	5.23	NP ND	NP	5.23	-	7.58	 -	32.56	5.24	NP	NP	5.24
NG NG	GZ-312S GZ-312D	10.77 10.95	10.58	8.64	Standpipe	Shallow	5/23/2014 5/23/2014	13.18	3 - 13 20 - 30	NP NP	NP NP	-	6.13 6.25	-	15 32.6	4.45 4.54	NP NP	NP NP	4.45 4.54	-	6.1	-	14.99 32.6	4.48 4.19	NP NP	NP NP	4.48 4.19
NG	GZ-312D GZ-313D	11.79	10.79 11.64	8.55 9.78	Standpipe Standpipe	Deep Deep	5/23/2014	30.51 36.34	26 - 36	NP NP	NP NP	-	8.57	-	38.11	3.07	NP NP	NP NP	3.07	-	10.16	-	38.05	1.48	NP NP	NP NP	1.48
NG	GZ-313D GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP NP	NP NP	 	9.2	-	36.42	4.28	NP NP	NP NP	4.28	_	9.64	 	36.4	3.84	NP NP	NP NP	3.84
NG	GZ-318D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP NP	NP NP	+	12.06	-	33.15	6.88	NP NP	NP NP	6.88	-	12.38	+ -	33.7	6.56	NP NP	NP NP	6.56
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP NP	NP	 	12.00		55.15	0.00	141	1.41	0.00	<u> </u>	12.30		33.7	0.50	141	1,41	0.50
NG	GZ-401	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP	†						†	1			1	† †				
NG	Unknown-2	10.90	10.87	11.10	Standpipe	Shallow	Unknown	10.95	Unknown	NP	NP								1								
ING	Olikilowii-Z	10.90	10.67	11.10	Stanupipe	SHAHOW	Ulikilowii	10.93	Ulikilowii	INF	INF	1	l					l		l	1	1					1

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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Cumu	eved Elevation	•		Wo	II Installation De	ntaile								July 2, 2014								uly 23, 2014			
		Surve	eyeu Elevatioi	15		l vve	I ilistaliation De	talis			Range of		Depth to	Denth to	Total Well	GW	LNAPL	DNAPL	Corrected		Depth to	Denth to	Total Well	GW 23, 2014	LNAPL	DNAPL	Corrected
Site	Well ID	Top of Casing	Top of PVC	Grade		Well Depth	Date of	Measured Well	Screened	Range of LNAPL	DNAPL	Denth to		DNAPL (ft)		Elevation	Thickness	Thickness		Depth to		DNAPL (ft)		Elevation	Thickness	Thickness	Groundwater
Area		Elevation	Elevation	Elevation	Type of Well	Modifier	Installation	Depth (feet bgs)	Interval	Observed (feet)	Observed	LNAPL (ft)	Water (it)	Diva E (it)	Deptii (it)	(feet)	(feet)	(feet)	Elevation (feet)) Water (it,	Divin E (it)	Deptil (it)	(feet)	(feet)	(feet)	Elevation (feet)
		(Feet)	(Feet)	(Feet)				., , , , , , , , , ,	(feet bgs)		(feet)	, ,				,,	(,	(223,	, , , , , , , , , , , ,					,,	, ,	,	(,
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												1				
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP												<u> </u>				
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP		1	1	Well destro	yed - replaced	with RW-1				1		Well destro	ed - replaced	l with RW-1	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 45.40	13.45	NS 12.70	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP												+ +				
LNG	RCA-31	15.19	14.98	12.78	Standpipe	Shallow	2/23/1996	13.30	5-15	NP	NP												+ +				
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP												+ +				
LNG	RCA-33 RCA-34	NS 15.08	9.67 15.09	NS 12.76	Standpipe Standpipe	Shallow Shallow	2/23/1996 2/29/1996	11.32 10.77	5 - 15 13 - 18	NP NP	NP NP	1		-									-				
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP NP	NP NP												+ +				
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP NP	NP NP												+ +				
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP NP	NP	1		1									+ +				
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							1					+				
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		0.00		17.00	0.52		1	0.52		0.03		27.51	0.03			0.03
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														<u> </u>		
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	1		1													
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	<u> </u>	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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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eved Elevation	ns		Wel	I Installation De	ataile								October 2014	1							April 2015			
Site Area	Well ID	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)	Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)		Depth to Water (ft)		Total Well Depth (ft)	GW	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	INADI (ft)	Depth to Water (ft)		Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
					T =	1								1			1		1			ı				I	
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 ND	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 6/8/1994	29.88	20 - 30 6.5 - 16.5	NP NP	NP NP	-	9.9 7.57	-	29.45	6.69	NP NP	NP NP	6.69 4.25	-	9.35	-	29.38	7.24	NP NP	NP NP	7.24 5.80
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow		15.89	-			-		-	15.43	4.25	-			-	6.02		14.97	5.80			
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP ND	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	NP NP	-	7.24	-	14.98	5.80	NP	NP	5.80	-	6.3	-	15.02	6.74	NP	NP	6.74
NG NG	RCA-13 RCA-14	11.94 13.09	11.61 12.75	10.51 11.06	Standpipe Standpipe	Shallow Shallow	9/12/1994 9/12/1994	13.97 13.61	4 - 14 5 - 15	NP NP	NP NP	_	8.84	-	15.25	inched - can no 3.91	NP NP	NP	3.91	_	8.16	_	15.38	ched - can no 4.59	NP	NP	4.59
			1			+		15.97		NP NP	NP NP	-	8.33	-	17.9		NP NP	NP NP	5.73	-	7.83	-	17.96	6.23	NP NP	NP NP	6.23
NG NG	RCA-15 RCA-17	NS NS	14.06 13.44	NS NS	Standpipe Standpipe	Shallow Shallow	12/8/1994 12/9/1994	12.80	4 - 14 4 - 14	NP NP	NP NP	-	8.29	-	14.78	5.73 5.15	NP NP	NP NP	5.15	-	6.82	-	14.79	6.62	NP NP	NP NP	6.62
NG	VHB-1	10.55	10.33	10.55	Roadbox	+	1/15/2002	11.72	2 - 12	NP NP	NP NP	-	4.92	-	1	5.41	NP NP	NP NP	5.41	-	3.82	-	+ +		NP NP	NP NP	6.51
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow Shallow	1/14/2002	7.90	2 - 12	trace	NP NP	-	5.63	-	11.35 10.2	6.33	NP NP	NP NP	6.33		4.32	-	11.3 10.19	6.51 7.64	NP	NP NP	7.64
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 10	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	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	5.00	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	11.00	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	CHES-RWA	NS	NS	NS	Recovery Well	Shallow	2017	9.80	Unknown	0.30 - 0.89	NP	-	-	_	-	-	-	-		_	-	_	-	-	-	-	-
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		5.02	l	1	ried under Sn			0.03
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 - 0.36	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																
NG	Unknown-2	10.90	10.87	11.10	Standpipe	Shallow	Unknown	10.95	Unknown	NP	NP														-		

Notes

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

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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.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eved Elevation	15		We	Il Installation De	etails								October 2014	1							April 2015			
Site Area	Well ID	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)	Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)		Depth to Water (ft)	Depth to DNAPL (ft		GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)		Depth to Water (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 destr	oyed - replaced	d with RW-1		•				Well destro	yed - 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-31	15.19	14.98	12.78	Standpipe	Shallow	2/23/1996	13.30	5-15	NP	NP																
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	T	5.4	-	8.82	NS	NP	NP	NS	-	4.05	-	8.45	NS	NP	NP	NS NS
LNG	ESS RW-2	NS 16.03	NS 16.03	NS 12.00	Recovery Well	Shallow	2002 2002	9.32 13.94	Unknown	NP	NP	Trace	8.19	-	11.3 16.98	NS 2.54	Trace	NP	NS 2.54	-	7.9	-	11.1	NS 2.05	NP	NP	NS 2.95
LNG	ESS RW-3 ESS RW-4			12.99	Recovery Well	Shallow	2002	13.94	Unknown	NP NP	NP NP	-	13.49 13.31	-	18.22	2.54	NP NP	NP NP	2.54 2.47	-	13.08	-	16.3 15	2.95 2.89	NP NP	NP NP	2.95
LNG	ESS RW-5	15.78 16.14	15.78 16.14	12.69 12.86	Recovery Well Recovery Well	Shallow Shallow	2002	13.85	Unknown	NP NP	NP NP	-	13.31	-	17.08	2.47	NP NP	NP NP	2.47	-	12.89 13.16	-	17	2.89	NP NP	NP NP	2.89
LNG	ESS RW-6	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP NP	NP NP	-	14.94	-	17.08	2.58	NP NP	NP NP	2.58	-	14.61	-	17	2.96	NP NP	NP NP	2.91
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP NP	NP NP	-	14.94	-	17.22	2.56	INF	INF	2.30	-	9.54	-	20.23	3.56	NP NP	NP NP	3.56
LNG	GZ-101 GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP NP	NP NP	 	9.89	<u> </u>	20.17	-0.36	NP	NP	-0.36		9.34	<u> </u>	20.23	0.29	NP NP	NP NP	0.29
LNG	GZ-201	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP NP	NP NP	 	9.52	-	17.49	3.31	NP NP	NP NP	3.31	-	8.54	-	17.3	4.29	NP	NP NP	4.29
LNG	GZ-204A GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP 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	<u> </u>	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
2.10	02 0100	15.50	1	20.20	otaap.pc	БССР	0, 2, 2027	30.32				1	20.00	1	1 02.00					1	3.55	1	52.20	3.32			3.02

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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	ved Elevation	nc .		Wel	l Installation De	tails								October 2015								May 2016			
Site Area	Well ID	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)	Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)		Depth to Water (ft)		Total Well	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)		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					ssioned Octob	er 2015							issioned Octob	er 2015		
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 NP	-	6.27	-	10.44	5.69	NP	NP	5.69	-	6 8	-	10.15	5.96	NP	NP	5.96
NG NG	VHB-6 VHB-7	12.91 14.30	12.93 13.73	10.25 11.29	Standpipe Standpipe	Shallow Shallow	1/14/2002 1/14/2002	9.77 12.66	2 - 12 2 - 12	NP NP	NP NP	-	9.31 9.54	-	12.2 15.3	3.62 4.19	NP NP	NP NP	3.62 4.19	-	9.18	-	11.12 15	4.93 4.55	NP NP	NP NP	4.93 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	- trace	9.58	-	17.18	5.77	NP	NP	5.77		9.19	-	17.93	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	CHES-RWA	NS	NS	NS	Recovery Well	Shallow	2017	9.80	Unknown	0.30 - 0.89	NP	-	-	-	-	r=1	-	-	-	-	-	-	-	-	-	-	-
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 NG	GZ-304D GZ-305S	12.41 11.84	11.95 11.64	12.41 11.84	Roadbox Roadbox	Deep Shallow	5/24/2014 5/22/2014	30.16 14.35	20 - 30 5 - 15	NP NP	NP NP	-	6.45 7.13	-	29.6 14.32	5.50 4.51	NP NP	NP NP	5.50 4.51	-	6.01 6.45	-	29.5 14.12	5.94 5.19	NP NP	NP NP	5.94 5.19
NG	GZ-3053	11.90	11.49	11.90	Roadbox	Shallow	5/22/2014	15.31	5 - 15	NP NP	NP	-	6.96	-	14.52	4.53	NP NP	NP NP	4.53	-	6.05	-	14.75	5.19	NP NP	NP	5.44
NG	GZ-3003 GZ-307S	10.70	10.18	10.70	Roadbox	Shallow	6/3/2014	14.67	3 - 13	trace - 0.36	NP		5.24	-	14.22	4.94	NP	NP	4.94	4.47	4.55	-	14.73	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
NG	Unknown-2	10.90	10.87	11.10	Standpipe	Shallow	Unknown	10.95	Unknown	NP	NP								1		l						

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.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eved Elevation	ns		We	I Installation De	etails								October 2015	5							May 2016			
Site Area	Well ID	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)	Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	Depth to LNAPL (ft)	Depth to Water (ft)		Total Well Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)		•	Depth to DNAPL (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 destro	oyed - replaced	d with RW-1	•	•			•	Well destr	oyed - 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-31	15.19	14.98	12.78	Standpipe	Shallow	2/23/1996	13.30	5-15	NP	NP																
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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Blanks indicate no measurement collected on that particular day.

Potentiometric elevations for wells exhibiting LNAPL include 0.85 correction factor.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eved Elevation	15		Well	Installation De	etails								October 2016								May 2017			
Site Area	Well ID	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)	Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)		Depth to Water (ft)		to Total Well (ft) Depth (ft)		LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (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	T -	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				Decom	nmissioned Jun	e 2016						Decon	nmissioned Jun	e 2016		
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP				Decom	nmissioned Jun	e 2016						Decon	nmissioned Jun	e 2016		
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP				Decomi	issioned Octobe	er 2015						Decom	issioned Octob	er 2015		
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP					nmissioned Jun							1	nmissioned Jun			
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					Jnable to oper	2016		
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP					nmissioned Jun								nmissioned Jun			
NG	VHB-6 VHB-7	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP NP					nmissioned Jun								nmissioned Jun nmissioned Jun			
NG NG	VHB-10	14.30 19.45	13.73 19.10	11.29 15.88	Standpipe Standpipe	Shallow Shallow	1/14/2002	12.66 14.77	2 - 12 5 - 15	NP trace - 0.02	NP NP					nmissioned Jun				+				missioned Jun			
NG	VHB-10 VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP NP					nmissioned Jun				+				missioned Jun			
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/21/2003	15.94	6 - 16	trace - 0.08	NP					nmissioned Jun								missioned Jun			
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP					nmissioned Jun				1				missioned Jun			
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP					nmissioned Jun								missioned Jun			
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP				Decom	nmissioned Jun	e 2016						Decon	nmissioned Jun	e 2016		
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP				Decom	nmissioned Jun	e 2016						Decon	nmissioned Jun	e 2016		
NG	CHES-RWA	NS	NS	NS	Recovery Well	Shallow	2017	9.80	Unknown	0.30 - 0.89	NP	-	-	-	-	-	-	-	-	-	-	-	-	n=1	-	-	-
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP				Decom	nmissioned Jun	e 2016						Decon	nmissioned Jun	e 2016		
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP				Decom	nmissioned Jun	e 2016						Decon	nmissioned Jun	e 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	- 2.67	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 - 0.36	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 NG	GZ-308S GZ-309D	9.71 10.51	8.96 9.83	9.71 10.51	Roadbox Roadbox	Shallow	6/4/2014 5/20/2014	12.33 30.58	2 - 12 20 - 30	NP NP	NP NP	-	2.62	-	11.45	6.34 Unable to open	NP	NP	6.34	-	1.20 3.64	-	11.36 11.25	7.76 6.19	NP NP	NP NP	7.76 6.19
NG	GZ-309D GZ-311D	13.04	12.82	10.51	Standpipe	Deep Deep	5/20/2014	29.91	20 - 30	NP NP	NP NP					nmissioned Jun				+ -	3.04		1	missioned Jun		NP	6.19
NG	GZ-311D GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/21/2014	13.18	3 - 13	NP NP	NP NP					nmissioned Jun				+				missioned Jun			
NG	GZ-3125 GZ-312D	10.77	10.38	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP NP	NP NP									+				missioned Jun			
NG	GZ-312D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP	Decommissioned June 2016 Decommissioned June 2016				+				missioned Jun							
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP									missioned Jun			-				
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP	•				†				missioned Jun							
NG	GZ-401	15.16	14.92	12.01	Standpipe	Shallow	11/2/2015	16.25	5 - 15	NP	NP					1				missioned Jun							
NG	GZ-403	14.52	14.29	11.45	Standpipe	Shallow	11/2/2015	14.65	3 - 13	NP	NP								Decon	missioned Jun	e 2016						
NG	Unknown-2	10.90	10.87	11.10	Standpipe	Shallow	Unknown	10.95	Unknown	NP	NP																

Notes

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

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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.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surve	eyed Elevation	15		Wel	l Installation De	etails			D					October 2016								May 2017			
Site Area	Well ID	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)	Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)				pth to Total Well APL (ft) Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)			Total Well) Depth (ft)	GW Elevation (feet)	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
																					I	1	1		1	1	
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP				Decor	nmissioned Jun	e 2016						Deco	mmissioned Ju	ne 2016		
LNG	RCA-6	10.90	10.66	10.90	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP	_	9.45	1	- 15.69	1.21	NP	NP	1.21					ould not locate			
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP				Decor	nmissioned Jun	e 2016							mmissioned Ju			
LNG	RCA-21	NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP				Well destr	oyed - replaced	with RW-1						Well dest	royed - replace	d 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				Decor	nmissioned Jun	e 2016						Deco	mmissioned Ju	ne 2016		
LNG	RCA-31	15.19	14.98	12.78	Standpipe	Shallow	2/23/1996	13.30	5-15	NP	NP												Monitorir	ng Well Lost - F	ound in 2017		
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP				Decor	nmissioned Jun	e 2016						Deco	mmissioned Ju	ne 2016		
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP				Decor	nmissioned Jun	e 2016						Deco	mmissioned Ju	ne 2016		
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP					Unable to oper	1			-	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				Decor	nmissioned Jun	e 2016						Deco	mmissioned Ju			
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					nmissioned Jun								mmissioned Ju			
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP				Decor	nmissioned Jun					•		Deco	mmissioned Ju	ne 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					nmissioned Jun								mmissioned Ju			
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP					nmissioned Jun								mmissioned Ju			
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP					nmissioned Jun								mmissioned Ju			
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP					nmissioned Jun								mmissioned Ju			
LNG	ESS RW-2	NS 16.00	NS 15.00	NS	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP		40.53	1		nmissioned Jun			2.45		1 40 50		1	mmissioned Ju	1		2.52
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 ESS RW-5	15.78 16.14	15.78 16.14	12.69	Recovery Well	Shallow Shallow	2002	12.06	Unknown	NP NP	NP NP	-	13.26 13.52	+	- 15.04 - 17	2.52	NP NP	NP NP	2.52	+ -	12.22 12.45	-	15.17 17.00	3.56 3.69	NP NP	NP NP	3.56 3.69
LNG	ESS RW-5	17.52	17.52	12.86	Recovery Well	Shallow	2002	13.85 14.33	Unknown	NP NP	NP NP	-	14.92	+	- 17 - 17.06	2.62	NP NP	NP NP	2.60	+	13.96	+ -	18.50	3.59	NP NP	NP NP	3.59
LNG	GZ-101	17.52	17.52	14.65 13.43	Recovery Well Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP NP	NP NP	-	9.79	+	- 17.06	3.31	NP NP	NP NP	3.31	+	9.08	-	20.07	4.02	NP NP	NP NP	4.02
LNG	GZ-101 GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP NP	NP NP	<u> </u>	7.95	+	- 20.13	1.58	NP NP	NP NP	1.58	+	9.50	+ -	20.07	0.03	NP NP	NP NP	0.03
LNG	GZ-201 GZ-204A	13.86	12.83	11.30	Standpipe	Shallow	4/8/2005	15.92	4 - 16	NP NP	NP NP	-	7.93			nmissioned Jun		INF	1.30	+ -	9.50	- -		mmissioned Ju		INF	0.05
LNG	GZ-204A GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP NP	NP NP					nmissioned Jun								mmissioned Ju			
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP									+				mmissioned Ju			
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP						+				mmissioned Ju						
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP					1				mmissioned Ju							
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	-	10.4		- 32.92	4.50	NP	NP	4.50	-	9.25	-	32.40	5.65	NP	NP	5.65

Notes

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SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

1		Surve	ved Elevation	15		Well	Installation De	tails													November 2018	3					
Site Area	Well ID	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)		Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)		Depth to Water (ft)		to Total Well (ft) Depth (ft)		LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (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		8.88	-	14.45	8.45	NP	NP	8.45		8.01	-	14.43	9.32	NP	NP	9.32
CNG	GZ-301D	17.74	17.33	17.74	Roadbox	Deep	5/30/2014	30.11	20 - 30	NP NP	NP NP	_	8.99	-	29.80	8.34	NP NP	NP NP	8.34	-	8.19	-	29.59	9.32	NP	NP NP	9.14
CNG	GZ-301D GZ-302S	16.97	16.67	16.97	Roadbox	Shallow	6/3/2014	15.00	5 - 15	NP NP	NP NP	_	8.90	+ -	14.77	7.77	NP	NP	7.77	 -	7.98	-	14.55	8.69	NP	NP	8.69
CNG	GZ-302D	16.97	16.59	16.97	Roadbox	Deep	5/30/2014	29.88	20 - 30	NP	NP	_	8.84	_	29.79	7.75	NP	NP	7.75	_	7.95	_	29.37	8.64	NP	NP	8.64
NG	RCA-1	12.21	11.82	12.21	Roadbox	Shallow	6/8/1994	15.89	6.5 - 16.5	NP	NP	_	5.15	-	14.91	6.67	NP	NP	6.67	_	4.52	_	15.41	7.30	NP	NP	7.30
NG	RCA-3	11.88	11.44	9.40	Standpipe	Shallow	9/9/1994	15.76	6 - 16	NP	trace		5.25	1		nmissioned Jun			0.07					nmissioned Jun			7.50
NG	RCA-11	13.27	13.04	10.57	Standpipe	Shallow	9/12/1994	12.53	4 - 14	NP	NP				Decor	nmissioned Jun	e 2016						Decoi	nmissioned Jun	e 2016		
NG	RCA-13	11.94	11.61	10.51	Standpipe	Shallow	9/12/1994	13.97	4 - 14	NP	NP					issioned Octob								issioned Octobe			
NG	RCA-14	13.09	12.75	11.06	Standpipe	Shallow	9/12/1994	13.61	5 - 15	NP	NP					nmissioned Jun								nmissioned Jun			
NG	RCA-15	NS	14.06	NS	Standpipe	Shallow	12/8/1994	15.97	4 - 14	NP	NP	-	7.53	-	18.16	6.53	NP	NP	6.53	-	6.96	-	17.92	7.10	NP	NP	7.10
NG	RCA-17	NS	13.44	NS	Standpipe	Shallow	12/9/1994	12.80	4 - 14	NP	NP	-	6.60	-	14.81	6.84	NP	NP	6.84	-	5.54	-	17.76	7.90	NP	NP	7.90
NG	VHB-1	10.55	10.33	10.55	Roadbox	Shallow	1/15/2002	11.72	2 - 12	NP	NP	-	2.91	-	29.70	7.42	NP	NP	7.42	-	3.05	-	29.87	7.28	NP	NP	7.28
NG	VHB-3	11.84	11.96	9.76	Standpipe	Shallow	1/14/2002	7.90	2 - 10	trace	NP			•	Decor	nmissioned Jun	e 2016						Deco	nmissioned Jun	e 2016	•	
NG	VHB-6	12.91	12.93	10.25	Standpipe	Shallow	1/14/2002	9.77	2 - 12	NP	NP				Decor	nmissioned Jun	e 2016						Deco	nmissioned Jun	e 2016		
NG	VHB-7	14.30	13.73	11.29	Standpipe	Shallow	1/14/2002	12.66	2 - 12	NP	NP				Decor	nmissioned Jun	e 2016						Deco	nmissioned Jun	e 2016		
NG	VHB-10	19.45	19.10	15.88	Standpipe	Shallow	1/15/2002	14.77	5 - 15	trace - 0.02	NP				Decor	nmissioned Jun	e 2016						Decoi	nmissioned Jun	e 2016		
NG	VHB-18	15.54	15.35	10.61	Standpipe	Shallow	1/21/2003	12.26	6 - 16	NP	NP				Decor	nmissioned Jun	e 2016						Decoi	nmissioned Jun	e 2016		
NG	VHB-21	13.80	13.65	11.09	Standpipe	Shallow	1/28/2003	15.94	6 - 16	trace - 0.08	NP				Decor	mmissioned Jun	e 2016						Decoi	nmissioned Jun	e 2016		
NG	VHB-22	13.32	13.02	11.21	Standpipe	Shallow	1/28/2003	15.49	6 - 16	0.01 - 0.04	NP				Decor	nmissioned Jun	e 2016						Decoi	nmissioned Jun	e 2016		
NG	VHB-23	12.98	12.80	11.37	Standpipe	Shallow	1/29/2003	16.37	6 - 16	trace - 0.05	NP				Decor	nmissioned Jun	e 2016						Decoi	nmissioned Jun	e 2016		
NG	CHES RW-1	12.94	12.94	11.06	Recovery Well	Shallow	2002	9.42	Unknown	NP	NP				Decor	nmissioned Jun	e 2016						Decoi	nmissioned Jun	e 2016		
NG	CHES RW-2	14.27	14.27	11.09	Recovery Well	Shallow	2002	13.12	Unknown	trace	NP					nmissioned Jun								nmissioned Jun			
NG	CHES-RWA	NS	NS	NS	Recovery Well	Shallow	2017	9.80	Unknown	0.30 - 0.89	NP	6.36	7.25	-	9.55	-	0.89	-	-	5.48	5.78	-	9.51	-	0.30	-	
NG	U-1	NS	9.67	7.71	Standpipe	Shallow	Unknown	9.08	Unknown	NP	NP					nmissioned Jun								nmissioned Jun			
NG	VHB-8R	14.85	14.06	12.60	Standpipe	Shallow	6/4/2014	12.29	2 - 12	NP	NP					nmissioned Jun						1		nmissioned Jun			
NG	GZ-303S	13.78	13.28	13.78	Roadbox	Shallow	5/28/2014	15.70	5 - 15	NP	NP	-	5.95	-	14.86	7.33	NP	NP	7.33	-	5.16	-	14.90	8.12	NP	NP	8.12
NG	GZ-303D	13.75	13.13	13.75	Roadbox	Deep	6/3/2014	30.32	20 - 30	NP	NP	-	5.60	-	29.95	7.53	NP	NP	7.53	-	4.88	-	29.62	8.25	NP	NP	8.25
NG	GZ-304D	12.41	11.95	12.41	Roadbox	Deep	5/24/2014	30.16	20 - 30	NP	NP NP	-	5.35	-	29.80	6.60	NP NP	NP	6.60	-	4.65	-	29.52	7.30	NP	NP	7.30
NG	GZ-305S GZ-306S	11.84	11.64	11.84	Roadbox Roadbox	Shallow Shallow	5/22/2014 5/22/2014	14.35	5 - 15	NP NP	NP NP	-	5.41	 	14.15 14.70	6.23	NP NP	NP NP	6.23 6.24	-	4.79 4.57	-	14.11 14.75	6.85	NP NP	NP NP	6.85 6.92
NG	GZ-3065 GZ-307S	11.90 10.70	11.49	11.90 10.70	Roadbox	Shallow	6/3/2014	15.31 14.67	5 - 15 3 - 13	trace - 0.36	NP NP	3.23	5.25 3.59	<u> </u>	14.70	6.24 6.59	0.36	NP NP	6.24	2 5 5	2.55	-	13.96	6.92 7.63		NP NP	7.63
NG NG	GZ-307S GZ-308S	9.71	10.18 8.96	9.71	Roadbox	Shallow	6/4/2014	12.33	2 - 12	NP	NP NP	3.23	3.33	1 -		ocate well under		L	0.30	2.55	0.90	+ -	11.05	8.06	trace NP	NP NP	8.06
NG	GZ-3085 GZ-309D	10.51	9.83	10.51	Roadbox	Deep	5/20/2014	30.58	20 - 30	NP NP	NP NP	<u> </u>	3.21	Τ.	30	6.62	NP	NP	6.62	 	2.88	 	29.87	6.95	NP NP	NP NP	6.95
NG	GZ-309D GZ-311D	13.04	12.82	10.31	Standpipe	Deep	5/20/2014	29.91	20 - 30	NP NP	NP NP		3.41	1 -		nmissioned Jun		INF	0.02	+ -	2.00	1 -		nmissioned Jun		INF	0.53
NG	GZ-311D GZ-312S	10.77	10.58	8.64	Standpipe	Shallow	5/23/2014	13.18	3 - 13	NP NP	NP NP									-				nmissioned Jun			
NG	GZ-3125	10.95	10.79	8.55	Standpipe	Deep	5/23/2014	30.51	20 - 30	NP	NP	Decommissioned June 2016 Decommissioned June 2016								nmissioned Jun							
NG	GZ-312D	11.79	11.64	9.78	Standpipe	Deep	5/27/2014	36.34	26 - 36	NP	NP	Decommissioned June 2016 Decommissioned June 2016								nmissioned Jun							
NG	GZ-318D	13.59	13.48	11.13	Standpipe	Deep	6/2/2014	34.15	20 - 30	NP	NP									nmissioned Jun							
NG	GZ-320D	19.25	18.94	16.03	Standpipe	Deep	6/5/2014	30.19	20 - 30	NP	NP									nmissioned Jun							
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																	
	Unknown-2	10.90	10.87	11.10	Standpipe	Shallow	Unknown	10.95	Unknown	NP	NP					well found in Si		9						well found in Su			

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.

SUMMARY OF GROUNDWATER AND NAPL GAUGING RESULTS

642 Allens Avenue Providence, Rhode Island

		Surv	eved Elevation	15		Wel	l Installation De	etails								March 2018								November 201	8		
Site Area	Well ID	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)	Range of LNAPL Observed (feet)	Range of DNAPL Observed (feet)	Depth to LNAPL (ft)			th to Total Well PL (ft) Depth (ft)		LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)	Depth to LNAPL (ft)	Depth to Water (ft)		Total Well Depth (ft)	GW Elevation	LNAPL Thickness (feet)	DNAPL Thickness (feet)	Corrected Groundwater Elevation (feet)
													1				1									1	
LNG	RCA-5	12.68	12.27	10.79	Standpipe	Shallow	9/7/1994	15.92	6 - 16	NP	NP				Decor	nmissioned Jun	e 2016						Deco	l ommissioned Jun	ne 2016		
LNG	RCA-6	10.90	10.66	10.73	Roadbox	Shallow	9/8/1994	17.44	7 - 17	NP	NP	<u> </u>	10.00	T -	1 1	0.66	NP	NP	0.66	 -	11.29	1 -	20.78	-0.63	NP	NP	-0.63
LNG	RCA-20	13.25	12.95	11.01	Standpipe	Shallow	10/18/1995	12.26	3.5 - 13.5	NP	NP		10.00	<u> </u>		nmissioned Jun		IVI	0.00		11.23	l		mmissioned Jun		INI	-0.03
LNG	RCA-21	NS NS	13.72	10.48	Standpipe	Shallow	10/30/1995	11.39	4 - 14	0.91 - 3.58	NP					oved - replaced								troyed - replaced			
LNG	RCA-22	NM	12.92	10.33	Standpipe	Shallow	Unknown	10.41	Unknown	NP	NP	-	8.66	-	12.72	4.26	NP	NP	4.26	-	8.35	-	12.98	4.57	NP	NP	4.57
LNG	RCA-28	NS	15.38	13.01	Standpipe	Shallow	1/17/1995	15.43	5 - 15	NP	NP	-	10.80	-	17.71	4.58	NP	NP	4.58	-	10.59	-	17.61	4.79	NP	NP	4.79
LNG	RCA-29	NS	13.45	NS	Standpipe	Shallow	2/13/1996	12.95	2 - 12	trace - 0.17	NP		•		Decor	nmissioned Jun	e 2016						Deco	mmissioned Jun	ne 2016	l l	
LNG	RCA-31	15.19	14.98	12.78	Standpipe	Shallow	2/23/1996	13.30	5-15	NP	NP	-	11.95	-	- 13.75	3.03	NP	NP	=	-	13.22	-	13.78	1.76	NP	NP	-
LNG	RCA-32	NS	12.16	NS	Standpipe	Shallow	2/3/1996	10.98	4 - 14	NP	NP				Decor	nmissioned Jun	e 2016						Deco	mmissioned Jun	ne 2016		
LNG	RCA-33	NS	9.67	NS	Standpipe	Shallow	2/23/1996	11.32	5 - 15	NP	NP				Decor	nmissioned Jun	e 2016						Deco	mmissioned Jun	ne 2016		
LNG	RCA-34	15.08	15.09	12.76	Standpipe	Shallow	2/29/1996	10.77	13 - 18	NP	NP	-	8.90	-	- 13.02	6.19	NP	NP	6.19	-	7.82	-	14.61	7.27	NP	NP	7.27
LNG	RCA-36	10.72	10.51	10.72	Roadbox	Shallow	3/1/1996	13.37	5 - 15	NP	NP	-	9.85	-	- 13.05	0.66	NP	NP	0.66				Filled with	sediment from	construction	1	
LNG	RCA-38	NS	9.36	NS	Standpipe	Shallow	5/2/1996	15.65	5 - 15	NP	NP				Decor	nmissioned Jun	e 2016						Deco	mmissioned Jun	ne 2016		
LNG	RCA-39	14.07	13.86	11.43	Standpipe	Shallow	5/3/1996	12.32	3 - 13	NP	NP	-	8.45	-	- 14.62	5.41	NP	NP	5.41	-	6.35	-	12.94	7.51	NP	NP	7.51
LNG	RCA-40	12.76	12.24	10.47	Standpipe	Shallow	5/3/1996	15.15	4 - 14	trace - 0.04	NP					nmissioned Jun								mmissioned Jun			
LNG	VHB-13	12.88	12.72	13.34	Roadbox	Shallow	1/16/2002	16.56	7 - 17	NP	NP					nmissioned Jun					1	1		mmissioned Jun			
LNG	VHB-20	15.15	14.98	13.01	Standpipe	Shallow	1/22/2002	15.57	6 - 16	NP	NP	-	7.88	-	1,	7.10	NP	NP	7.10	-	7.20	-	17.41	7.78	NP	NP	7.78
LNG	CHES RW-3	14.30	14.30	11.24	Recovery Well	Shallow	2002	14.84	Unknown	trace	NP					nmissioned Jun								mmissioned Jun			
LNG	CHES RW-4	13.08	13.08	9.09	Recovery Well	Shallow	2002	8.57	Unknown	trace - 0.03	NP					nmissioned Jun								mmissioned Jun			
LNG	CHES RW-5	14.32	14.32	11.16	Recovery Well	Shallow	2002	11.34	Unknown	0.01	NP					nmissioned Jun								mmissioned Jun			
LNG	ESS RW-1	NS	NS	NS	Recovery Well	Shallow	2002	6.70	Unknown	NP	NP					nmissioned Jun								mmissioned Jun			
LNG	ESS RW-2	NS 16.02	NS 46.02	NS 12.00	Recovery Well	Shallow	2002	9.32	Unknown	NP	NP		42.46	1		nmissioned Jun		N.D.	2.57		11.01	1		mmissioned Jun		l ND I	4.42
LNG	ESS RW-3 ESS RW-4	16.03 15.78	16.03 15.78	12.99	Recovery Well	Shallow Shallow	2002	13.94 12.06	Unknown Unknown	NP NP	NP NP	-	12.46 12.13	+ -	- 17.5 - 15.48	3.57	NP NP	NP NP	3.57 3.65	+ -	11.91 11.67	-	16.79 15.04	4.12	NP NP	NP NP	4.12 4.11
LNG	ESS RW-5	16.14	16.14	12.69 12.86	Recovery Well Recovery Well	Shallow	2002	13.85	Unknown	NP NP	NP NP	-	12.13	-		3.65 3.79	NP NP	NP NP	3.79	-	11.85		16.70	4.11 4.29	NP NP	NP NP	4.11
LNG	ESS RW-5	17.52	17.52	14.65	Recovery Well	Shallow	2002	14.33	Unknown	NP NP	NP NP	-	13.75	+ -		3.79	NP NP	NP NP	3.77	+ -	13.31	-	16.70	4.29	NP NP	NP NP	4.29
LNG	GZ-101	13.43	13.10	13.43	Roadbox	Shallow	4/29/2004	20.21	10 - 20	NP NP	NP NP	 	9.00	+ -		4.10	NP NP	NP NP	4.10	+ -	8.36	-	20.12	4.74	NP NP	NP NP	4.74
LNG	GZ-101 GZ-201	9.83	9.53	7.53	Standpipe	Shallow	4/8/2005	18.08	10 - 20	NP NP	NP	<u> </u>	7.75	+	20.80	1.78	NP	NP	1.78	+ -	10.30	+ -	20.78	-0.77	NP	NP NP	-0.77
LNG	GZ-201	13.86	12.83	11.30	Standpipe	Shallow	4/12/2005	15.92	4 - 16	NP	NP		7.73			nmissioned Jun		141	1.70		10.50	ļ -		ommissioned Jun		181	-0.77
LNG	GZ-216	12.85	11.61	10.34	Standpipe	Shallow	5/17/2005	16.45	5 - 15	NP	NP					nmissioned Jun				+				mmissioned Jun			
LNG	RW-1	14.18	14.18	11.84	Recovery Well	Shallow	6/17/2014	11.66	8 - 13	trace - 0.02	NP					nmissioned Jun								mmissioned Jun			
LNG	GZ-314S	14.35	14.19	11.13	Standpipe	Shallow	6/3/2014	18.88	4 - 19	NP	NP					nmissioned Jun								mmissioned Jun			
LNG	GZ-314D	14.24	14.11	11.22	Standpipe	Deep	6/3/2014	34.11	24 - 34	NP	NP					nmissioned Jun				1				mmissioned Jun			-
LNG	GZ-315D	13.06	12.93	10.17	Standpipe	Deep	6/4/2014	30.29	20 - 30	NP	NP				Decor	nmissioned Jun	e 2016			1			Deco	mmissioned Jun	ne 2016		
LNG	GZ-319D	15.50	14.90	13.19	Standpipe	Deep	6/2/2014	30.52	20 - 30	NP	NP	-	9.69	-	32.40	5.21	NP	NP	5.21	-	8.71	-	32.29	6.19	NP	NP	6.19

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.

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

642 Allens Avenue Providence, Rhode Island

	Date November 2001	June 2002	September 2002	October 2002	October 2002	November 2002	December 2002	December 2002	January 2003	February 2003	February 2003	February 2003	September 2003	September 2005	March 2006
Natural Gas Reg	ulation Facility														
RCA-11	trace	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	NG
RCA-15	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	ND	NG
VHB-1	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG
VHB-2	NI	ND	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	trace	NG
VHB-3	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG
VHB-6	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	ND	NG
VHB-7	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	ND	NG
VHB-9	NI	trace	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	ND	NG
VHB-10	NI	trace	0.01	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG
VHB-18	NI	NI	NI	NG	NG	NG	NG	NG	NG	trace	NG	NG	trace	ND	ND
VHB-21	NI	NI	NI	NG	NG	NG	NG	NG	NG	trace	NG	NG	trace	trace	NG
VHB-22	NI	NI	NI	NG	NG	NG	NG	NG	NG	trace	NG	NG	trace	0.03	0.58
VHB-23	NI	NI	NI	NG	NG	NG	NG	NG	NG	trace	NG	NG	trace	ND	0.05
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
CHES RW-2	NI	NI	NI	ND	ND	ND	ND	ND	ND	NG	ND	ND	NG	ND	NG
CHESRW-A	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
GZ-307S	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
RCA-5	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG
RCA-6	trace	NG	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG
RCA-21	NG	NG	ND	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
RCA-28	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG
RCA-29	0.33	NG	0.01	NG	NG	NG	NG	NG	NG	NG	NG	NG	0.15	trace	ND
RCA-36	ND	NG	trace	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	NG
RCA-39	ND	NG	ND	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	trace	NG
RCA-40	0.25	NG	0.01	NG	NG	NG	NG	NG	NG	NG	NG	NG	trace	trace	0.1
CHES RW-3	NI	NI	NI	ND	ND	ND	ND	ND	ND	NG	ND	ND	NG	ND	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
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
ESS RW-1	NI	NI	NI	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	NG
ESS RW-2	NI	NI	NI	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	NG
ESS RW-4	NI	NI	NI	NG	NG	NG	NG	NG	NG	NG	NG	NG	ND	0.5	NG
RW-1	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

Date	June 2006	July 2006	October 2006	December 2006	March 2008	December 2009	June 2010	January 2011	July 2011	August 2011	February 2012	July 2012	February 2013	November 2013
Natural Gas Regulation														
RCA-11	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
RCA-15	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
VHB-1	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
VHB-2	NG	NG	NG	NG	NG	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
VHB-3	NG	NG	NG	NG	NG	NG	NG	NG	ND	trace	ND	ND	ND	ND
VHB-6	NG	NG	NG	NG	ND	ND	NG	ND	ND	ND	ND	ND	ND	ND
VHB-7	NG	NG	NG	NG	trace	ND	ND	ND	ND	ND	ND	ND	ND	ND
VHB-9	NG	NG	NG	NG	ND	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
VHB-10	NG	NG	NG	NG	trace	NG	ND	trace	trace	0.01	trace	0.02	ND	0.01
VHB-18	ND	ND	ND	NG	ND	ND	ND	NG	ND	ND	ND	ND	ND	ND
VHB-21	NG	NG	NG	NG	trace	trace	ND	ND	ND	ND	ND	0.01	0.01	trace
VHB-22	0.69	NG	0.33	0.46	0.4	NG	NG	NG	0.01	ND	trace	0.04	ND	0.01
VHB-23	ND	ND	ND	ND	0.01	NG	NG	NG	0.01	0.05	trace	ND	0.01	ND
CHES RW-1	ND	ND	0.02	ND	trace	NG	NG	NG	ND	ND	ND	ND	ND	ND
CHES RW-2	NG	NG	NG	NG	trace	NG	NG	NG	ND	ND	trace	ND	trace	ND
CHESRW-A	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
GZ-307S	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
LNG Facility														
RCA-4	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
RCA-5	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
RCA-6	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
RCA-21	NG	NG	NG	NG	NG	NG	NG	NG	3.58	2.94	2.79	1.65	1.44	1.91
RCA-22	NG	NG	NG	NG	ND	NG	NG	ND	ND	ND	ND	ND	ND	ND
RCA-28	NG	NG	NG	NG	trace	NG	NG	ND	ND	ND	ND	ND	ND	ND
RCA-29	0.36	0.15	0.11	0.15	0.3	NG	NG	NG	0.08	trace	trace	0.11	trace	ND
RCA-36	NG	NG	NG	NG	ND	NG	NG	NG	ND	ND	ND	ND	ND	ND
RCA-39	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
RCA-40	0.21	0.18	0.22	0.01	0.01	NG	NG	NG	ND	ND	trace	trace	trace	ND
CHES RW-3	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
CHES RW-4	0.18	0.13	0.1	0.08	0.09	NG	NG	NG	0.02	0.03	0.01	trace	trace	0.01
CHES RW-5	ND	ND	0.01	ND	trace	NG	NG	NG	ND	ND	ND	ND	ND	ND
ESS RW-1	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
ESS RW-2	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
ESS RW-4	NG	NG	NG	NG	NG	NG	NG	NG	ND	ND	ND	ND	ND	ND
RW-1	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

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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

Date	June 2014	July 2, 2014	July 23, 2014	October 2014	April 2015	October 2015	May 2016	October 2016	May 2017	March 2018	November 2018
Natural Gas Regulation											
RCA-11	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
RCA-15	ND	NG	NG	ND	ND	ND	ND	ND	ND	ND	ND
VHB-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VHB-2	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
VHB-3	ND	ND	ND	ND	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
VHB-6	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
VHB-7	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
VHB-9	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
VHB-10	trace	trace	ND	ND	ND	trace	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
VHB-18	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
VHB-21	ND	trace	0.08	ND	0.01	trace	0.01	Decomissioned	Decomissioned	Decomissioned	Decomissioned
VHB-22	trace	NG	NG	0.04	0.01	003	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
VHB-23	0.03	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
CHES RW-1	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
CHES RW-2	ND	NG	NG	ND	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
CHESRW-A	NI	NI	NI	NI	NI	NI	NI	NI	NI	0.89	0.3
GZ-307S	ND	ND	ND	ND	ND	ND	0.08	0.05	0.02	0.36	trace
LNG Facility											
RCA-4	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
RCA-5	ND	ND	ND	ND	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
RCA-6	NG	NG	NG	ND	ND	ND	ND	ND	ND	ND	ND
RCA-21	0.91	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest	Dest
RCA-22	ND	NG	NG	ND	ND	ND	ND	ND	ND	ND	ND
RCA-28	ND	NG	ND	ND	ND	ND	ND	ND	ND	ND	ND
RCA-29	0.17	NG	NG	0.08	0.02	0.10	0.01	Decomissioned	Decomissioned	Decomissioned	Decomissioned
RCA-36	ND	NG	NG	ND	ND	ND	ND	ND	ND	ND	ND
RCA-39	ND	NG	NG	ND	ND	ND	ND	ND	ND	ND	ND
RCA-40	ND	NG	NG	ND	0.04	trace	0.02	Decomissioned	Decomissioned	Decomissioned	Decomissioned
CHES RW-3	ND	NG	NG	ND	trace	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
CHES RW-4	ND	NG	trace	trace	trace	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
CHES RW-5	ND	NG	ND	ND	0.01	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
ESS RW-1	ND	NG	NG	ND	ND	ND	trace	Decomissioned	Decomissioned	Decomissioned	Decomissioned
ESS RW-2	ND	NG	NG	trace	ND	ND	ND	Decomissioned	Decomissioned	Decomissioned	Decomissioned
ESS RW-4	ND	NG	NG	ND	ND	ND	ND	ND	ND	ND	ND
RW-1	NI	0.02	trace	0.01	trace	trace	trace	Decomissioned	Decomissioned	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.

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

642 Allens Avenue

Providence, Rhode Island

Date	November 2001	September 2002	September 2003	September 2005	March 2008	December 2009	June 2010	January 2011	July 2011	August 2011	February 2012	July 2012	February 2013	November 2013
RCA-3	0.17	trace	trace	trace	ND	ND	ND	trace	trace	trace	trace	trace	trace	trace

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

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

642 Allens Avenue

Providence, Rhode Island

Date	June 2014	July 2, 2014	July 23, 2014	October 2014	April 2015	October 2015	May 2016	October 2016	May 2017	March 2018	November 2018
RCA-3	trace	trace	trace	trace	trace	trace	trace	Decommissioned	Decommissioned	Decommissioned	Decommissioned

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

TABLE 5 LNAPL GAUGING AND RECOVERY - GZ-307S

642 Allens Avenue Providence, Rhode Island

Date	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Estimated Volume Purged (gallons)
6/3/2014	ND	4.84	ND	NR
6/6/2014	ND	4.82	ND	NR
6/16/2014	ND	4.73	ND	NR
7/2/2014	ND	4.86	ND	NR
7/23/2014	ND	4.85	ND	NR
10/30/2014	ND	5.09	ND	NR
4/9/2015	ND	3.84	ND	NR
10/14/2015	ND	5.24	ND	NR
5/18/2016	4.47	4.55	0.08	NR
7/26/2016	5.10	5.36	0.26	NR
8/30/2016	3.95	4.00	0.05	NR
9/16/2016	5.26	5.59	0.33	NR
10/28/2016	5.05	5.10	0.05	NR
11/30/2016	4.80	4.84	0.04	NR
12/13/2016	4.95	5.04	0.09	NR
5/30/2017	3.67	3.69	0.02	NR
1/24/2018	3.28	3.50	0.22	NR
2/21/2018	3.23	3.52	0.29	NR
3/20/2018	3.23	3.59	0.36	NR
4/26/2018	5.98	6.98	1.00	NR
5/15/2018	3.97	4.47	0.50	trace
6/28/2018	4.80	4.88	0.08	NR
8/30/2018	4.07	4.54	0.47	NR
9/5/2018	4.67	4.75	0.08	1
10/1/2018	3.19	3.20	0.01	NR
10/30/2018	3.54	3.55	0.01	NR
11/14/2018	2.55	2.55	trace	NR
12/19/2018	3.64	3.64	trace	NR

Notes: ND = Not Detected

NR = Not Recovered trace = <0.01 feet product

TABLE 6 LNAPL GAUGING AND RECOVERY - CHES-RW-A

642 Allens Avenue Providence, Rhode Island

Date	Depth to LNAPL	Depth to Water	LNAPL Thickness	Estimated Volume
2410	(feet)	(feet)	(feet)	Purged (gallons)
9/19/2017	7.83	8.85	1.02	110
9/21/2017	7.85	8.75	0.9	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	0.4	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 FO
10/13/2017	7.95	8.38	0.43	50 45
10/16/2017	8.10	8.42	0.32	
10/17/2017 10/18/2017	7.97 7.97	8.38 8.36	0.41 0.39	NR 40
10/19/2017	8.00	8.36	0.36	NR
10/19/2017	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 NR
10/25/2017	5.85	6.04	0.19	45
10/26/2017	5.98	6.08	0.1	NR
10/27/2017	6.53	6.73	0.2	80
10/30/2017	2.52	2.80	0.28	NR
10/31/2017	4.40	4.70	0.3	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	0.2	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
3/20/2018	6.36	7.25	0.89	NR
4/26/2018	3.32	3.58	0.26	NR
5/15/2018	7.21	7.65	0.44	4
6/28/2018	7.56	9.05	1.49	3
8/30/2018	7.46	8.85	1.39	NR
9/5/2018	7.58	9.14	1.56	72
9/6/2018	7.70	8.00	0.3	NR
9/7/2018	7.77	8.40	0.63	NR
9/8/2018	7.71	8.28	0.57	NR NP
9/10/2018 9/12/2018	7.73	8.43	0.7	NR NB
	7.59 6.69	8.36 7.31	0.77 0.62	NR NR
9/13/2018 9/20/2018	6.68	7.31	0.62	NR NR
9/20/2018	6.76	7.42	0.66	NR NR
9/22/2018	7.08	7.75	0.67	NR NR
9/24/2018	7.08	7.75	0.75	NR NR
9/25/2018	4.91	5.92	1.01	NR
9/26/2018	4.91	5.92	1.01	NR
9/27/2018	4.63	5.65	1.02	NR
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LNAPL GAUGING AND RECOVERY - CHES-RW-A

642 Allens Avenue Providence, Rhode Island

Date	Depth to LNAPL	Depth to Water	LNAPL Thickness	Estimated Volume
	(feet)	(feet)	(feet)	Purged (gallons)
9/28/2018	4.63	5.65	1.02	NR
9/29/2018	5.07	6.08	1.01	NR
10/1/2018	5.56	6.50	0.94	NR
10/2/2018	5.75	6.80	1.05	20
10/3/2018	4.81	4.87	0.06	NR
10/4/2018	5.20	5.26	0.06	NR
10/5/2018	5.47	5.53	0.06	NR
10/6/2018	5.70	5.76	0.06	NR
10/9/2018	6.15	6.20	0.05	NR
10/10/2018	6.36	6.42	0.06	NR
10/11/2018	6.44	6.49	0.05	NR
10/12/2018	4.88	4.94	0.06	NR
10/13/2018	5.51	5.56	0.05	NR
10/15/2018	5.87	5.93	0.06	NR
10/16/2018	6.09	6.14	0.05	NR
10/17/2018	6.23	6.29	0.06	NR
10/18/2018	6.54	6.60	0.06	NR
10/19/2018	6.62	6.69	0.07	NR
10/20/2018	6.59	6.67	0.08	NR
10/22/2018	6.82	7.02	0.2	NR
10/23/2018	6.92	7.08	0.16	NR
10/24/2018	6.88	7.02	0.14	15
10/25/2018	7.09	7.23	0.14	NR
10/26/2018	7.18	7.34	0.16	NR
10/29/2018	6.44	6.89	0.45	NR
10/30/2018	6.55	6.96	0.41	NR
11/1/2018	6.59	7.03	0.44	NR
11/2/2018	6.63	7.04	0.41	NR
11/5/2018	6.33	6.74	0.41	NR
11/6/2018	6.15	6.57	0.42	NR
11/7/2018	5.84	6.25	0.41	NR
11/8/2018	5.95	6.36	0.41	NR
11/9/2018	6.10	6.54	0.44	NR
11/13/2018	5.00	5.43	0.43	NR
11/14/2018	5.48	5.78	0.3	NR
11/15/2018	5.69	6.09	0.4	NR
11/16/2018	5.32	5.73	0.41	NR
11/19/2018	5.21	5.61	0.4	NR
11/20/2018	5.50	5.90	0.4	NR

Notes: NR = Not Recovered

Volume purged was noted as a mixture of LNAPL and groundwater

TABLE 7 SUMMARY OF GROUNDWATER VOC ANALYTICAL RESULTS

642 Allens Avenue Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1803460-06 3/21/2018	RCA-12R 1803460-07 3/21/2018	RCA-15 1803460-08 3/21/2018	RCA-22 1803460-09 3/21/2018	RCA-36 1803460-10 3/20/2018	VHB-1 1803460-11 3/21/2018	VHB-20 1803460-12 3/21/2018	GZA-201 1803460-01 3/20/2018	GZ-301D 1803460-02 3/21/2018	GZ-304D 1803460-03 3/21/2018	GZ-309D 1803460-04 3/21/2018	GZ-319D 1803460-05 3/21/2018
EPA Method 8260B VOLATILE OR	GANICS														
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	<0.001	0.0059	0.0054	<0.001	<0.0010	0.0017	<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	<0.0010	<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	<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

TABLE 7 SUMMARY OF GROUNDWATER VOC ANALYTICAL RESULTS

642 Allens Avenue Providence, Rhode Island

		RIDEM GB	RIDEM GB	RCA-1 1803460-06	RCA-12R 1803460-07	RCA-15 1803460-08	RCA-22 1803460-09	RCA-36 1803460-10	VHB-1 1803460-11	VHB-20 1803460-12	GZA-201 1803460-01	GZ-301D 1803460-02	GZ-304D 1803460-03	GZ-309D 1803460-04	GZ-319D 1803460-05
	Units	Groundwater Objective	Groundwater UCL	3/21/2018	3/21/2018	3/21/2018	3/21/2018	3/20/2018	3/21/2018	3/21/2018	3/20/2018	3/21/2018	3/21/2018	3/21/2018	3/21/2018
EPA Method 8260B VOLATILE C	RGANICS	•													
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	<0.0010	<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
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	0.0028	<0.0010	<0.0010	1.08	0.0359	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0056
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
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	0.0024	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	<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
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	<0.0010	<0.0010	0.0458	0.0046	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

TABLE 7 SUMMARY OF GROUNDWATER VOC ANALYTICAL RESULTS

642 Allens Avenue Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	RCA-1 1803460-06 3/21/2018	RCA-12R 1803460-07 3/21/2018	RCA-15 1803460-08 3/21/2018	RCA-22 1803460-09 3/21/2018	RCA-36 1803460-10 3/20/2018	VHB-1 1803460-11 3/21/2018	VHB-20 1803460-12 3/21/2018	GZA-201 1803460-01 3/20/2018	GZ-301D 1803460-02 3/21/2018	GZ-304D 1803460-03 3/21/2018	GZ-309D 1803460-04 3/21/2018	GZ-319D 1803460-05 3/21/2018
EPA Method 8260B VOLATILE ORG		ı	1				T	T	ı	T	T	T	T	T	I
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	<0.0010	<0.0010	0.0427	0.0022	0.0061	<0.0010	0.0073	<0.0010	<0.0010	<0.0010	0.0017
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	0.0141	<0.0010	0.0024	0.418	0.0042	<0.0010	<0.0010	0.0084	<0.0010	0.0023	<0.0010	0.0013
n-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	0.0044	<0.0010	<0.0010	<0.0010	0.0034	<0.0010	<0.0010	<0.0010	<0.0010
n-Propylbenzene	mg/L	NE	NE	<0.0010	<0.0010	< 0.0010	0.0129	0.0014	0.0020	<0.0010	0.0043	<0.0010	<0.0010	<0.0010	<0.0010
sec-Butylbenzene	mg/L	NE	NE	<0.0010	< 0.0010	< 0.0010	0.0025	<0.0010	0.0021	<0.0010	0.0041	<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	<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	<0.0010	<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	<0.0050
Toluene	mg/L	1.7	21	<0.0010	<0.0010	<0.0010	0.0012	<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	<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	0.0026	<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
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
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	0.0028	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	0.0160	0.0023	<0.0010	<0.0010	0.0014	<0.0010	<0.0010	<0.0010	<0.0010
Xylene P,M	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	0.0034	<0.0020	<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	0.0194	0.0023	<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.

<u>Underlined concentrations exceed the RIDEM GB Groundwater Upper</u>
<u>Concentration Limit</u>

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

TABLE 8 SUMMARY OF GROUNDWATER QAQC VOC ANALYTICAL RESULTS

642 Allens Avenue Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	BD32118 1803460-13 3/21/2018	GZ-319D 1803460-05 3/21/2018	Trip Blank 1803460-14 3/20/2018	Trip Blank 1803460-15 3/21/2018
EPA Method 8260B VOLATILE O	RGANIC	S					
1,1,1,2-Tetrachloroethane	mg/L	NE	NE	<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
1,1,2,2-Tetrachloroethane	mg/L	NE	NE	<0.0005	<0.0005	<0.0005	<0.0005
1,1,2-Trichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloroethene	mg/L	0.007	23	<0.0010	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020
1,2,3-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
1,2,4-Trimethylbenzene	mg/L	NE	NE	<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
1,2-Dibromoethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
1.2-Dichlorobenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloroethane	mg/L	0.11	670	<0.0010	<0.0010	<0.0010	<0.0010
1,2-Dichloropropane	mg/L	3	140	<0.0010	<0.0010	<0.0010	<0.0010
1,3,5-Trimethylbenzene	mg/L	NE NE	NE NE	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichlorobenzene	mg/L	NE NE	NE NE	<0.0010	<0.0010	<0.0010	<0.0010
1,3-Dichloropropane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
1,4-Dichlorobenzene	mg/L	NE	NE NE	<0.0010	<0.0010	<0.0010	<0.0010
1.4-Dioxane - Screen	mg/L	NE NE	NE NE	<0.500	<0.500	<0.500	<0.500
1-Chlorohexane	mg/L	NE NE	NE NE	<0.0010	<0.0010	<0.0010	<0.0010
2,2-Dichloropropane	mg/L	NE	NE NE	<0.0010	<0.0010	<0.0010	<0.0010
2-Butanone	mg/L	NE NE	NE NE	<0.010	<0.010	<0.0010	<0.0010
2-Chlorotoluene	· ·	NE	NE NE	<0.0100	<0.0100	<0.0100	<0.0100
2-Enforctordene 2-Hexanone	mg/L	NE NE	NE NE	<0.0010	<0.0100	<0.0010	<0.0010
4-Chlorotoluene	mg/L	NE NE	NE NE	<0.0100	<0.0100	<0.0100	<0.0100
4-Isopropyltoluene	mg/L	NE NE	NE NE	<0.0010	<0.0010	<0.0010	<0.0010
4-Methyl-2-Pentanone	mg/L mg/L	NE NE	NE NE	<0.0010	<0.0010	<0.0010	<0.0010
,	· .						
Acetone	mg/L	NE 0.14	NE 10	<0.0100	<0.0100	<0.0100	<0.0100
Benzene	mg/L	0.14	18	0.0050	0.0056	<0.0010	<0.0010
Bromobenzene	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020
Bromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Bromodichloromethane	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006
Bromoform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Bromomethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020
Carbon Disulfide	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Carbon Tetrachloride	mg/L	0.07	NE	<0.0010	<0.0010	<0.0010	<0.0010
Chlorobenzene	mg/L	3.2	56	<0.0010	<0.0010	<0.0010	<0.0010
Chloroethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020
Chloroform	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Chloromethane	mg/L	NE	NE	<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
cis-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004
Dibromochloromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Dibromomethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Dichlorodifluoromethane	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020
Diethyl Ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Di-isopropyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Ethyl tertiary-butyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Ethylbenzene	mg/L	1.6	16	<0.0010	<0.0010	<0.0010	<0.0010
Hexachlorobutadiene	mg/L	NE	NE	<0.0006	<0.0006	<0.0006	<0.0006
Hexachloroethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Isopropylbenzene	mg/L	NE	NE	0.0016	0.0017	<0.0010	<0.0010
Methyl tert-Butyl Ether	mg/L	5	NE	<0.0010	<0.0010	<0.0010	<0.0010
Methylene Chloride	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020
Naphthalene	mg/L	2.67	NE	<0.0010	0.0013	<0.0010	<0.0010
n-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010

TABLE 8 SUMMARY OF GROUNDWATER QAQC VOC ANALYTICAL RESULTS

642 Allens Avenue

Providence, Rhode Island

	Units	RIDEM GB Groundwater Objective	RIDEM GB Groundwater UCL	BD32118 1803460-13 3/21/2018	GZ-319D 1803460-05 3/21/2018	Trip Blank 1803460-14 3/20/2018	Trip Blank 1803460-15 3/21/2018
EPA Method 8260B VOLATILE O	RGANIC	S					
n-Propylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
sec-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Styrene	mg/L	2.2	50	<0.0010	<0.0010	<0.0010	<0.0010
tert-Butylbenzene	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Tertiary-amyl methyl ether	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Tetrachloroethene	mg/L	0.15	NE	<0.0010	<0.0010	<0.0010	<0.0010
Tetrahydrofuran	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050
Toluene	mg/L	1.7	21	<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
trans-1,3-Dichloropropene	mg/L	NE	NE	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethene	mg/L	0.54	87	<0.0010	<0.0010	<0.0010	<0.0010
Trichlorofluoromethane	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Trihalomethanes (Total)	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Vinyl Acetate	mg/L	NE	NE	<0.0050	<0.0050	<0.0050	<0.0050
Vinyl Chloride	mg/L	0.002	NE	<0.0010	<0.0010	<0.0010	<0.0010
Xylene O	mg/L	NE	NE	<0.0010	<0.0010	<0.0010	<0.0010
Xylene P,M	mg/L	NE	NE	<0.0020	<0.0020	<0.0020	<0.0020
Xylenes (Total)	mg/L	NE	NE	<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.

<u>Underlined concentrations exceed the RIDEM GB Groundwater Upper Concentration Limit</u>

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

BD 32118 is a blind duplicate of GZ-319D



FIGURES

NATIONAL GRID MONITORING REPORT - 2018 FORMER MANUFACTURED GAS PLANT (MGP) 642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

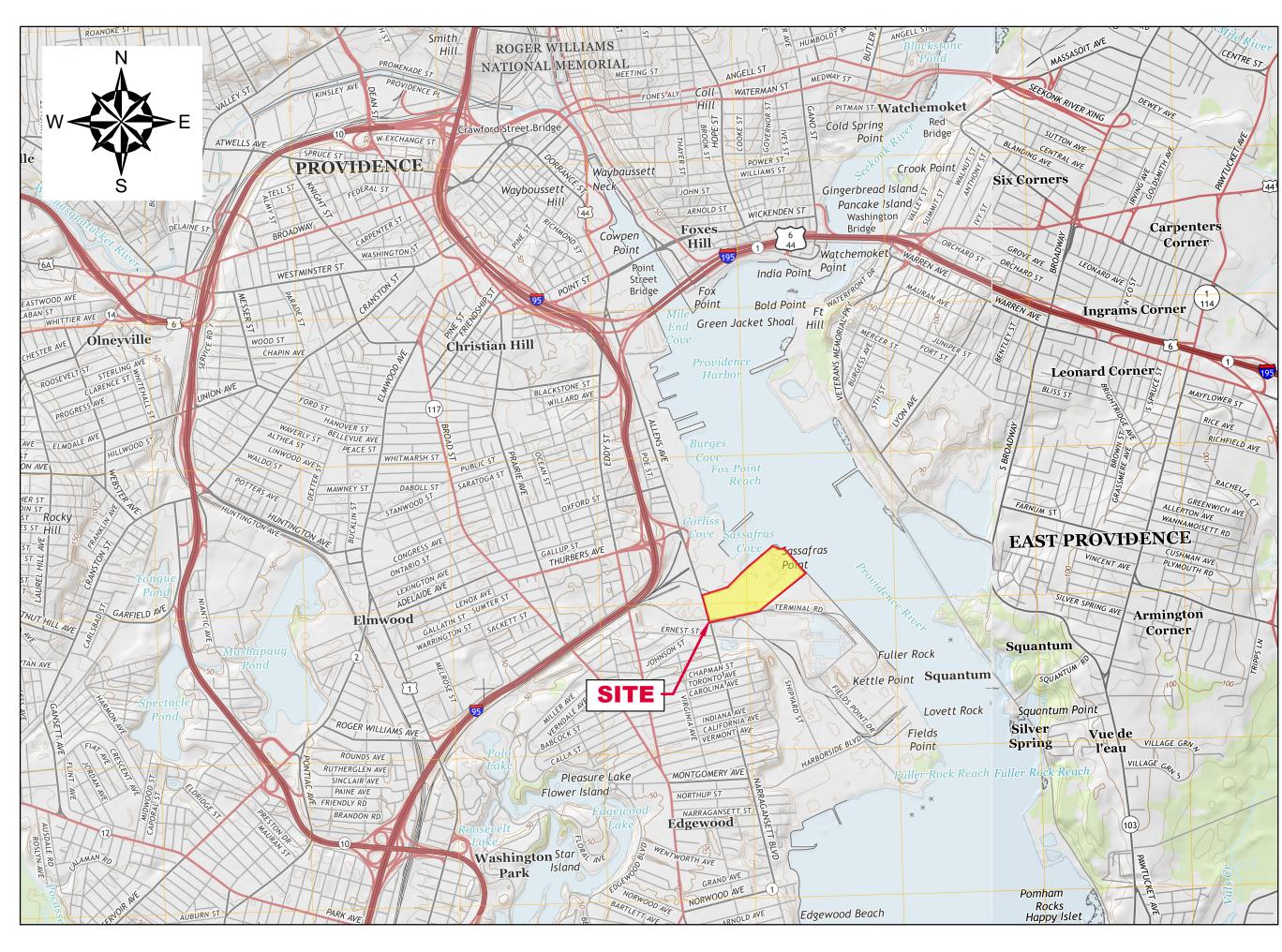
JANUARY 2021

PREPARED FOR:

nationalgrid

PREPARED BY:

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



	INDEX OF DRAWINGS									
SHEET#	TITLE									
C1	TITLE SHEET AND INDEX TO DRAWINGS									
N1	GENERAL NOTES AND LEGEND									
2	OVERALL AERIAL SITE PLAN									
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 (MARCH 2018)									
6	HISTORICAL NAPL THICKNESS (>0.01 FEET) (2001-2018)									
7	2018 NAPL AND GROUNDWATER ANALYTICAL DATA									

LOCUS MAP

SOURCE: USGSSTORE.GOV

SCALE: 1 INCH = 2000 FEET

FINAL
SSUED FOR PERMITTING

EXPLORATION LEGEND:

ENVIRONMENTAL BORING OBSERVED BY GZA IN 2014 GZ-314 S/D + ENVIRONMENTAL BORING OBSERVED BY VHB IN 2002 AND 2003 ENVIRONMENTAL BORING OBSERVED BY ESS IN 1999 AND 2000 ENVIRONMENTAL BORING OBSERVED BY ESS IN 1999 ENVIRONMENTAL BORING OBSERVED BY ESS IN 1998 ENVIRONMENTAL BORING OBSERVED BY RCA BETWEEN 1994-1996 ENVIRONMENTAL TEST PITS OBSERVED BY GZA IN 2014 ENVIRONMENTAL TEST PITS OBSERVED BY VHB IN 2008 **ENVIRONMENTAL TEST PITS OBSERVED BY VHB IN 2002** TP-1 🔲 ENVIRONMENTAL TEST PITS OBSERVED BY RCA IN 1995 AND 1996 ETP-4 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 SEDIMENT SAMPLE COLLECTED BY RCA IN 1994 AND 1995 RSS−1 ⊕ 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 RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002 CHES-RW-1 -RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000 ESS-RW-1 B-201 🕕 GEOTECHNICAL BORING PERFORMED BY GOLDER ASSOCIATES IN 2016 GEOTECHNICAL BORING BY GZA IN 2016 GZ-3 -PP-1 📵 GEOTECHNICAL BORING PERFORMED BY PROCESS PIPELINE SERVICES IN 2015 GEOTECHNICAL BORING OBSERVED BY GZA IN 2015 GZ-401 -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 GEOTECHNICAL BORING OBSERVED BY SWEC IN 1995 SWBL13 + B-207 — GEOTECHNICAL BORING PERFORMED FOR PROVIDENCE GAS COMPANY IN 1973 GEOTECHNICAL BORING OBSERVED BY HALEY & ALDRICH IN 1971 AND 1972 B-25 -PGC-8 GEOTECHNICAL BORING PERFORMED FOR PROVIDENCE GAS COMPANY IN 1912

ENVIRONMENTAL TEST PIT OBSERVED BY ESS IN 1999 AND 2000

MONITORING WELL LEGEND:

MONITORING WELL INSTALLED BY GZA IN 2015 MONITORING WELL INSTALLED BY GZA IN 2014 MONITORING WELL INSTALLED BY GZA IN 2005 MONITORING WELL INSTALLED BY VHB IN 2002 AND 2003 TEMPORARY WELL POINT INSTALLED BY ESS IN 1999 AND 2000 TEMPORARY WELL POINT INSTALLED BY ESS IN 1999 MONITORING WELL INSTALLED BY RCA IN 1996 CHES-RW-A RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2017 RECOVERY WELL INSTALLED BY CHES OBSERVED BY GZA IN 2014 RECOVERY WELL INSTALLED BY CHES OBSERVED BY VHB IN 2002 CHES-RW-1 RECOVERY WELL INSTALLED BY ESS IN 1999 AND 2000 ACTIVE MONITORING WELLS DECOMMISSIONED OR DESTROYED MONITORING WELLS 2016 DECOMMISSIONED MONITORING WELLS TEMPORARY MONITORING WELL-ASSUMED DESTROYED RECOVERY WELLS RECOVERY WELL DESTROYED NOVEMBER 2018 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 2019 SAMPLING PROGRAM MONITORING WELL SAMPLED IN 2018 SHALLOW GROUNDWATER ELEVATION CONTOUR (NAVD 1988) ON MARCH 19, 2018. INFERRED SHALLOW GROUNDWATER ELEVATION CONTOUR (NAVD 1988) ON MARCH 19, 2018. GROUNDWATER ELEVATION OBSERVED ON MARCH 19, 2018 (IN FEET RELATIVE TO NAVD 1988) INDICATES THE MONITORING WELL SCREEN IS SHALLOW

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) INDICATES WHETHER MONITORING WELL IS SHALLOW OR DEEP

NOT DETECTED

(GENERALLY AT THE NATURAL WATER TABLE)

INDICATES THE MONITORING WELL SCREEN IS DEEP (GENERALLY DEEPER THAN THE NATURAL WATER TABLE)

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 2018.
- 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 2018.

- 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

THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY NATIONAL GRID OR THI NATIONAL GRID'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OF ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSI WITHOUT THE PRIOR WRITTEN CONSENT OF GZA AND NATIONAL GRID. ANY TRANSFER, REUSE, OF MODIFICATION TO THE DRAWING BY OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA AND NATIONAL GRID, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OF LIABLITY TO GZA AND NATIONAL GRID.

NATIONAL GRID MONITORING REPORT - 2018 642 ALLENS AVENUE PROVIDENCE, RHODE ISLAND

GENERAL NOTES AND LEGEND

GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

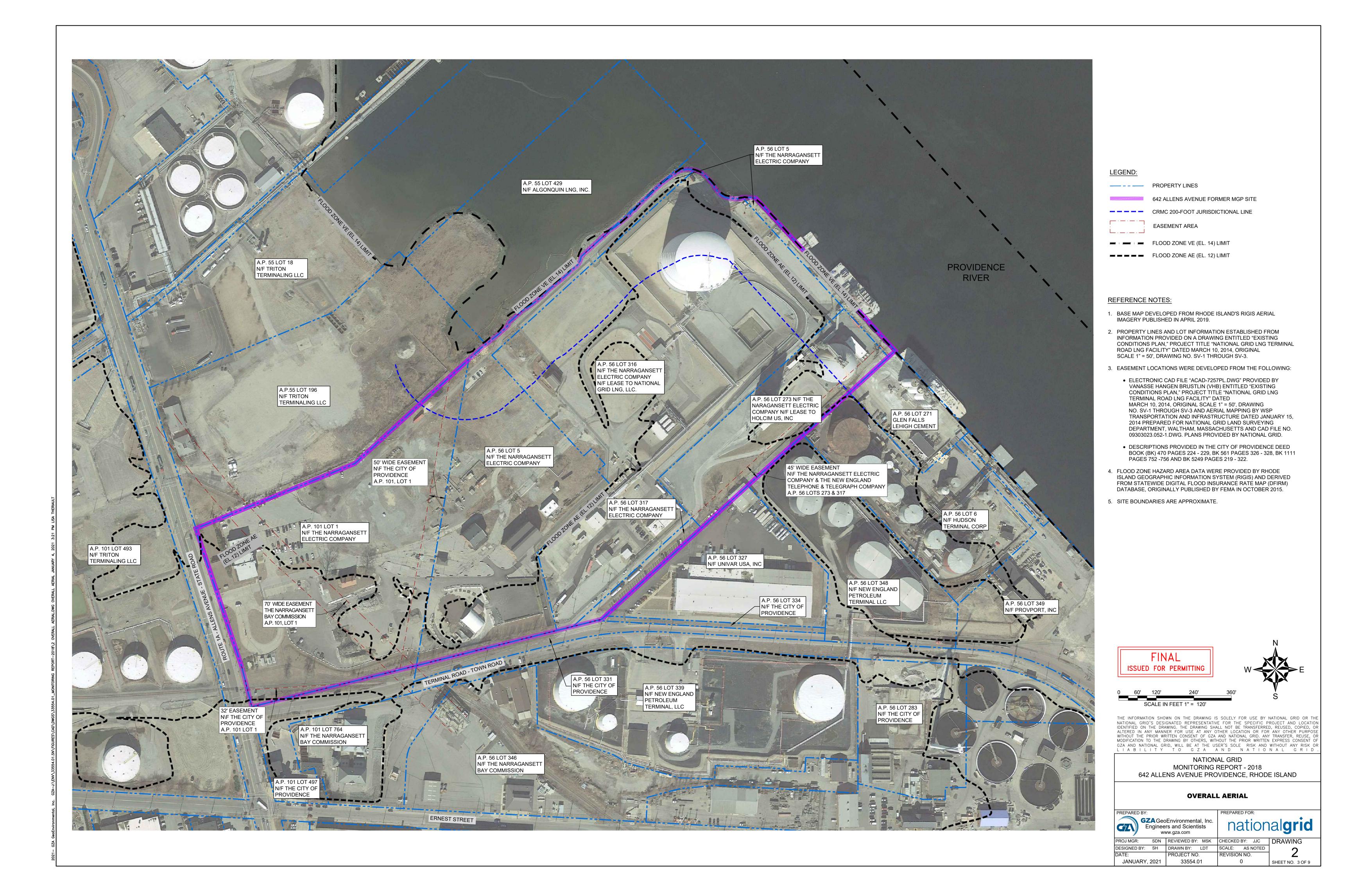
nationalgrid

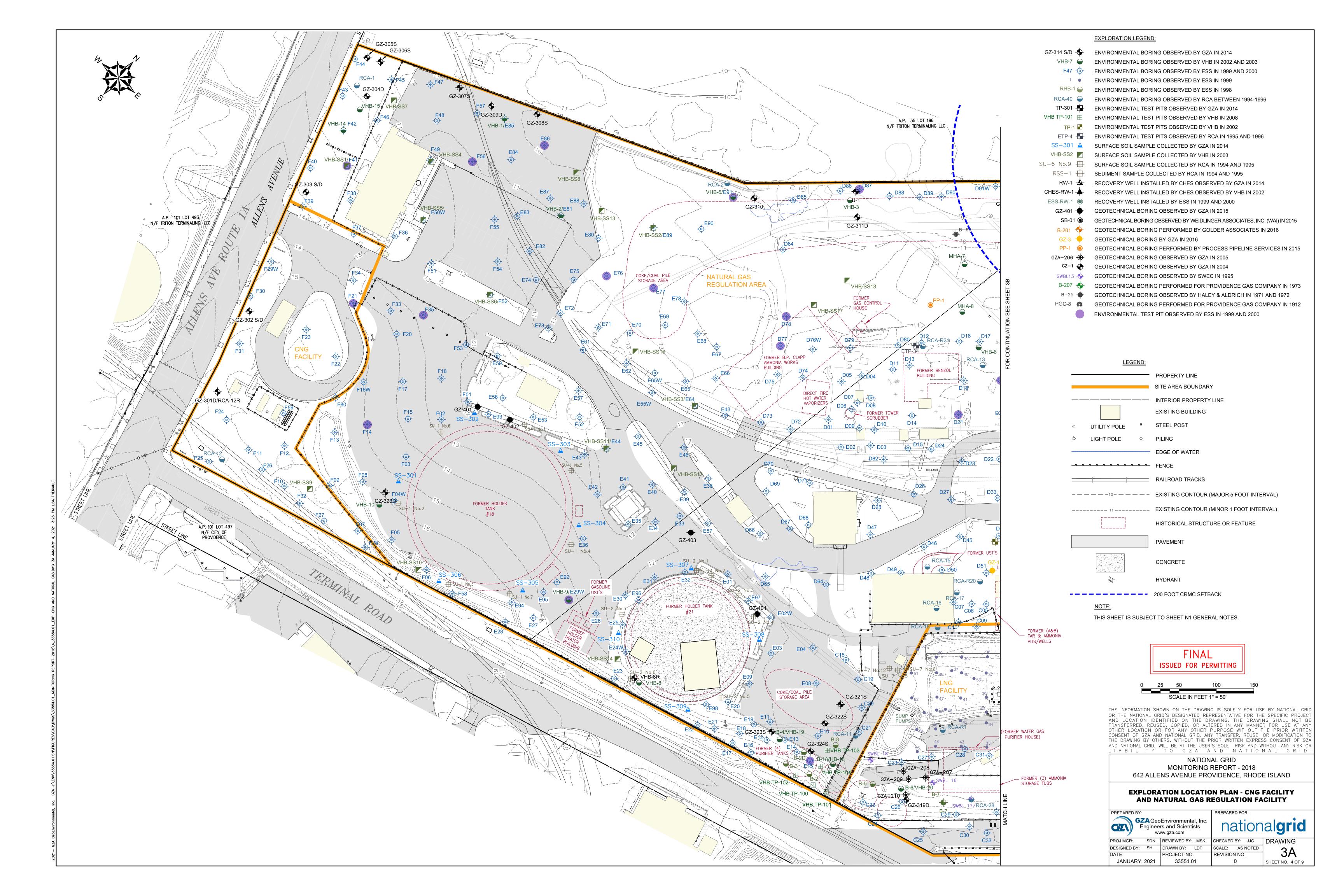
PROJ MGR: SDN REVIEWED BY: MSK CHECKED BY: JJC

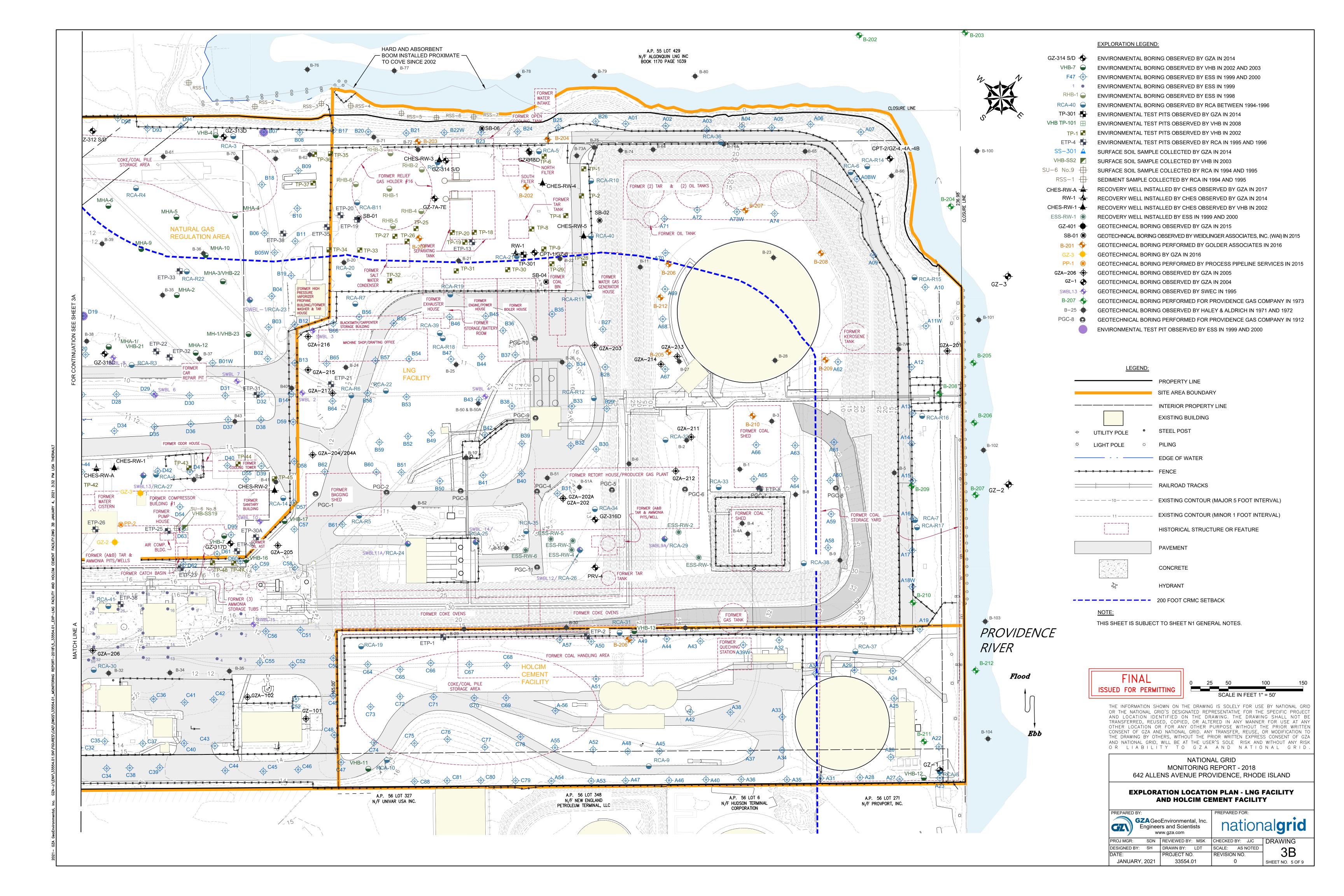
DESIGNED BY: SH DRAWN BY: LDT SCALE: AS NOTED

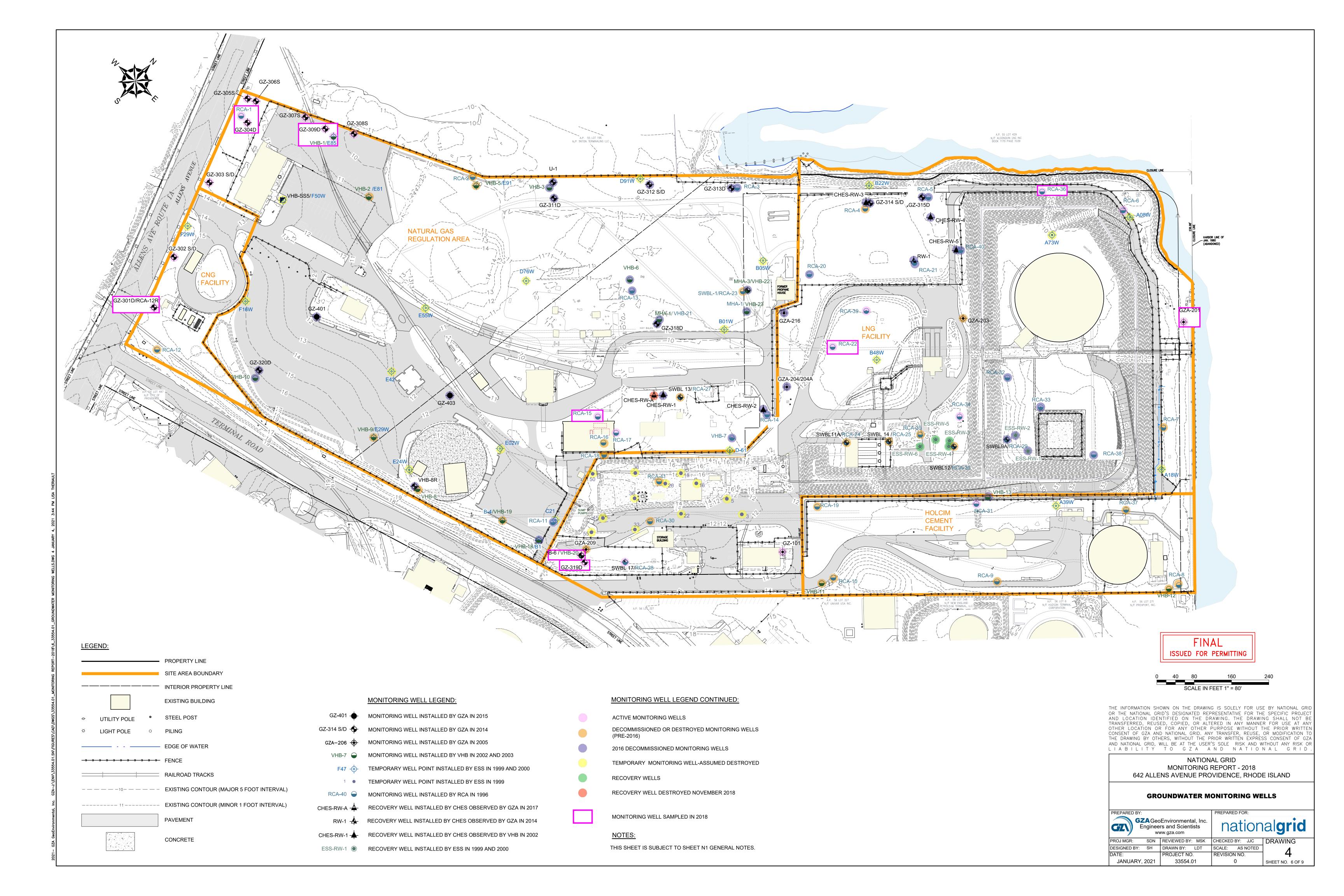
DATE: PROJECT NO. REVISION NO.

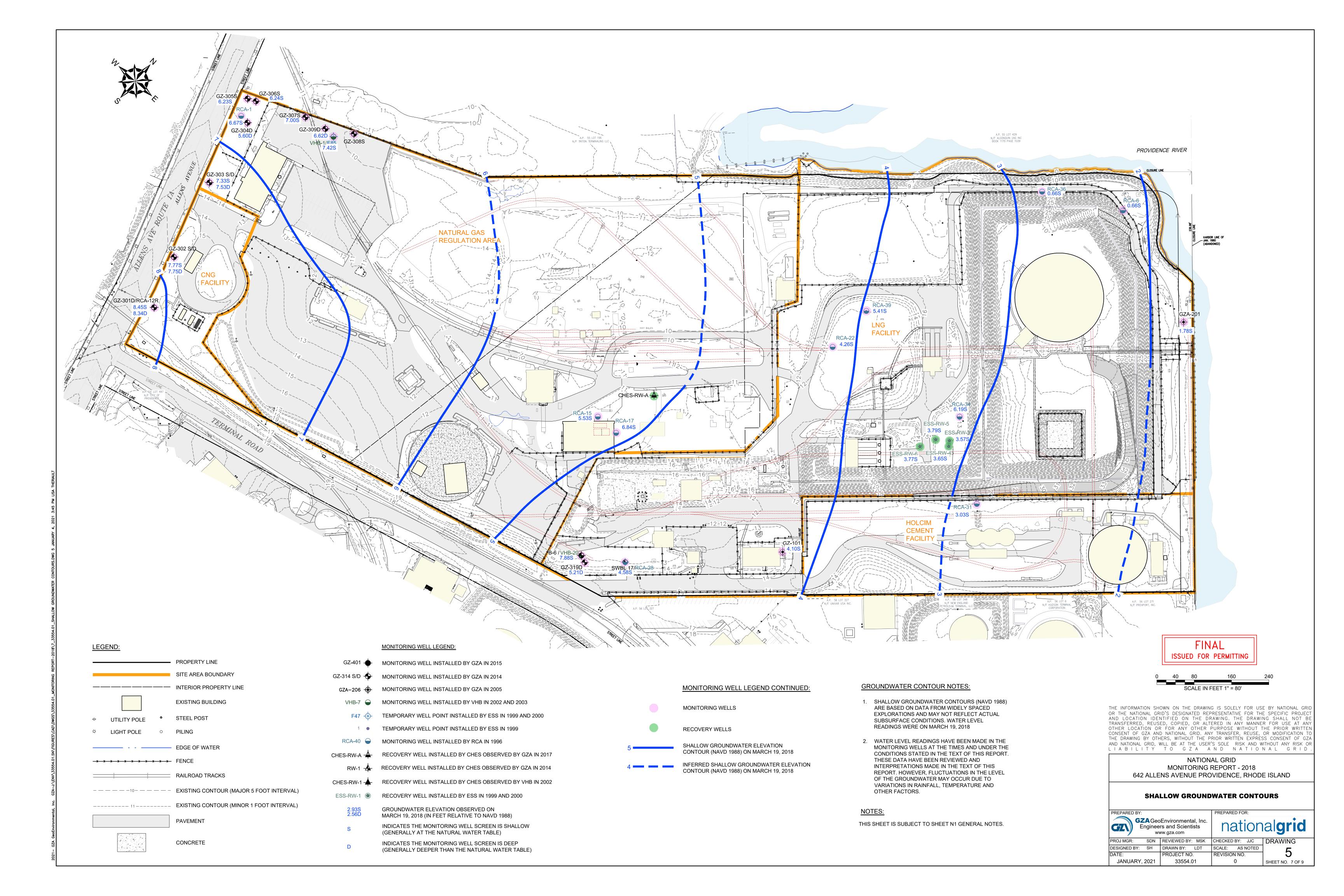
JANUARY, 2021 33554.01 0 SHEET NO. 2 OF 9

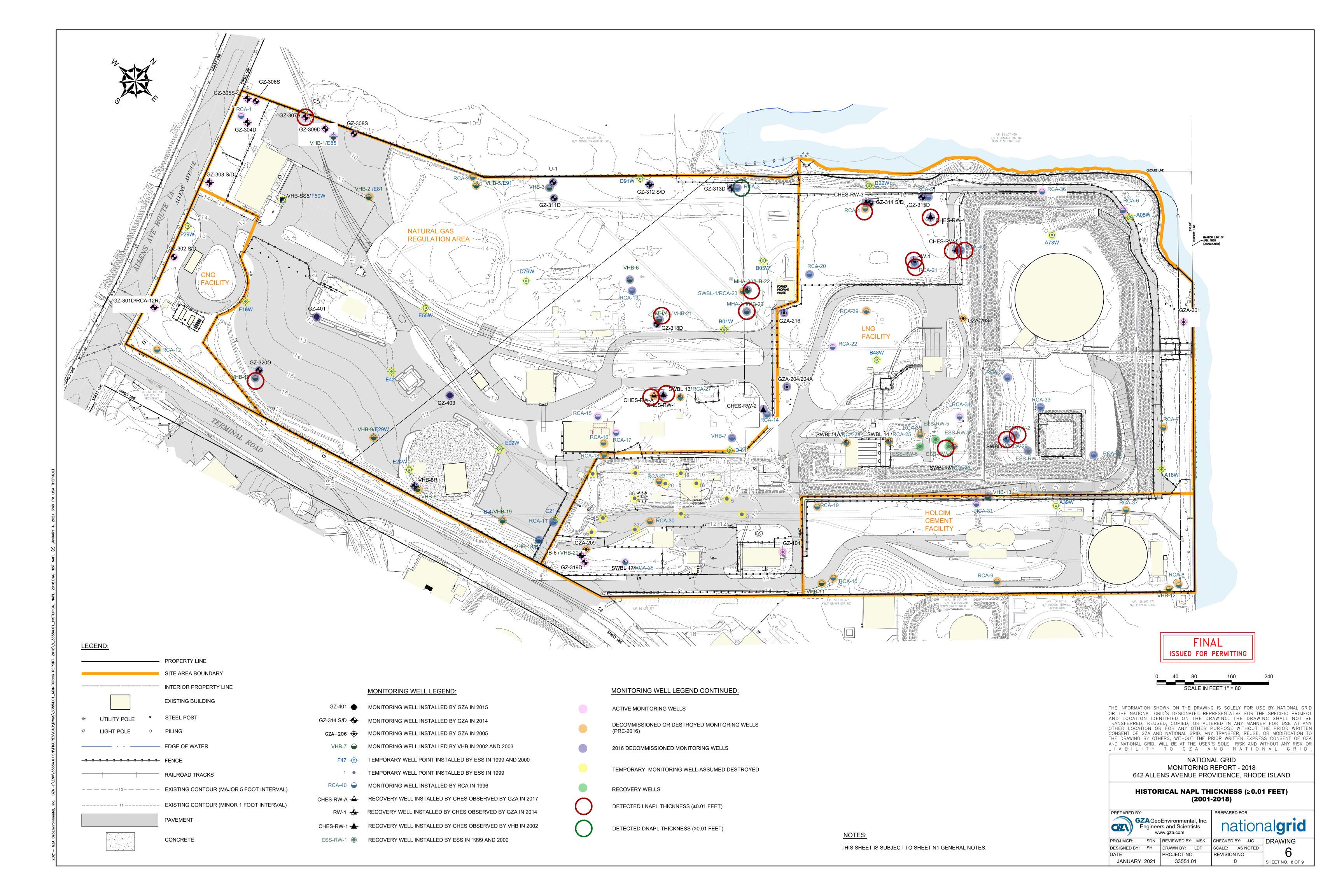


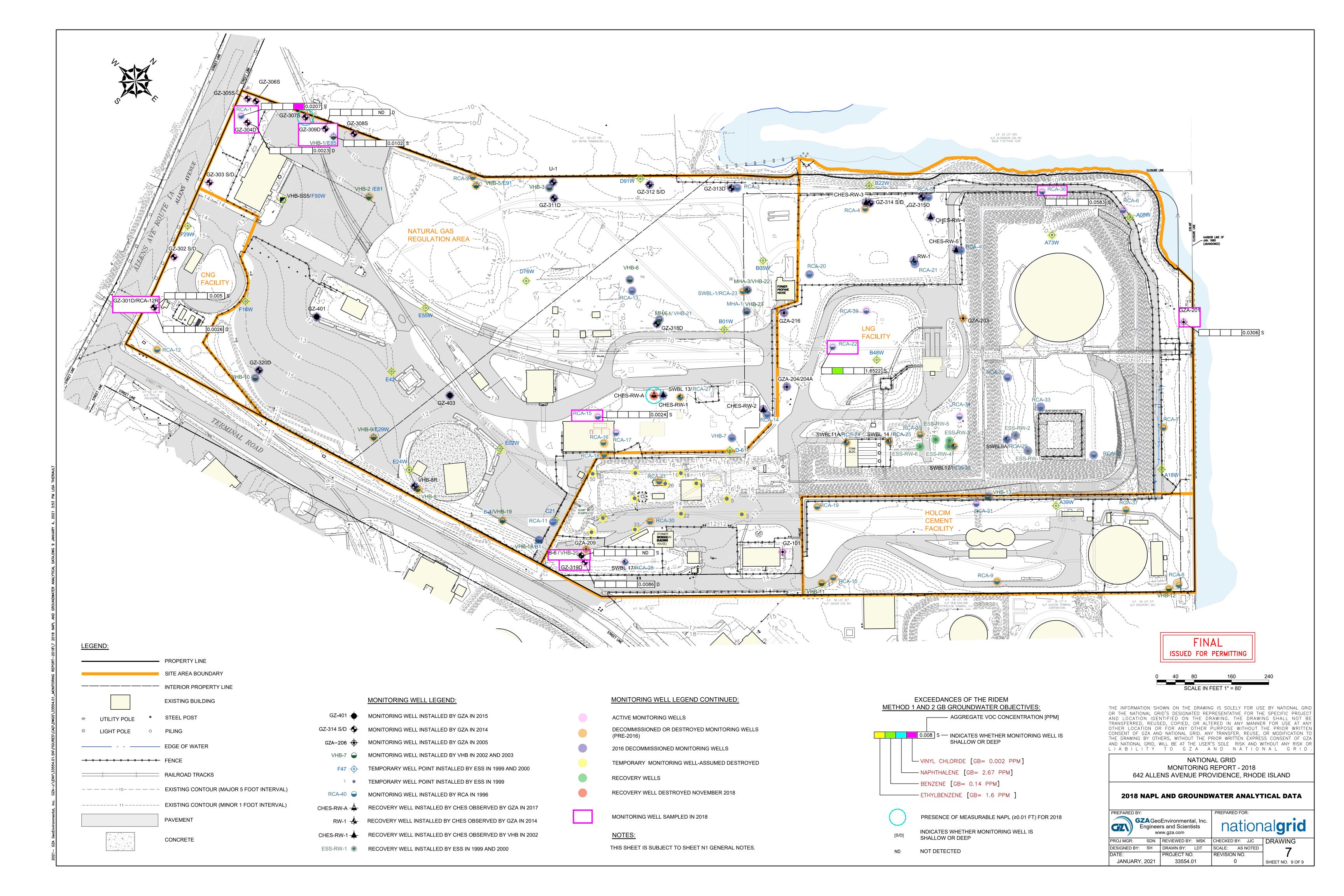














APPENDIX A

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.
- 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

Groundwater Sampling Low Flow Logs

Sample S	File No.	3	3554.01					Wel	ID:	GZA-201
Veather: Cloudy 40 s	Project	642	Allens Ave	•				Sample D	Date:	3/19/2018
PVC Riser Value	Location			State: RI				Sampler's na	ime:	RH / CL / EN
PVC Riser Z Casing Ground PVC Riser Z 20.54 PVC Riser Round PVC Riser Round PVC Riser Round PVC Riser Round Ro	Weather:	C	loudy 40's							
Standing water in well (feet) 20.54 Standing water in well (feet) 2.5 Standing water in well (feet	WATER LE	EVEL OBSERVA	TIONS			meas	urement date/ti	ime:	3/19/18 - 1415	i
Standing water in well (feet) 20.54 Standing water in well (feet) 2.5 Standing water in well (feet	Doint of mass		D	VC Diggs V	Cooine	Crownd	7			
Depth to NAPL (feet) Simple water (feet) Simple water (feet) Simple perh to water (feet) Simple water (fee			Р	VC Riser X		Ground	_	Ct 1: :-		11.02
Sample Depth (feet bgs) 15 Sample Depth (feet bgs) 15 Sample PTPVC to Ground (feet) -										
Neglet to DNAPL (feet Series New Yell Screen (feet Series Series To to 10 to 20 Standpipe TPVC to Ground (feet) New Yell Screen (feet Series To to 10 to 20 New Yell Screen To to 10 to 20 New Yell Condition: Protective casing Dook X good Expansion cap Yes X no Well Door X good X good New Yell Door X good New Yell Door X good Yell Yes	-									
Notes									-	
Vell Condition: Protective casing										
COUPMENT Sample Method: Bailer X Pump / X Low Flow Flow Thru Cell Vol (mL): 300 Meter Type: YSI	Well Scieen	(leet bgs)			10 to 20			Roaubox 11 vC	.o Orouna (ree	
	Well Conditi	ion:	Protectiv	ve casing	poor X	good F	xpansion cap	ves X	no Well ID	ves X no
Sample Method: Bailer N Pump X Low Flow Low Flow No. 2 Pump Type: geopump No. 2 Plow Thru Cell Vol (mL): 300 NSTRUMENT MEASUREMENTS: Start time: 1437 Stop time: 1600 Notes No. 2 Plow Thru Cell Vol (mL): 300 Notes No. No. Notes No. No. Notes No. No					_		-			
Sample Method Sample Metho				lock X	yes	no Co	ncrete Collar	X yes	no Well	poor X good
No. 2	EQUIPME	<u>NT</u>								
No. 2					Sampl	e Method:	Bailer	X Pump /	X Low Flor	w
NSTRUMENT MEASUREMENTS: Start time: 1437	Pump Type	: geopump)	No.	2					
NSTRUMENT MEASUREMENTS: Start time: 1437	Motor Tyro			No	2			Flow Then C	oll Wol (mI).	200
Depth to water (ft) (drawdown (mV) (±0.1) (±0.1) (±0.1) (±0.6) (±0.5) (±0.5) (±0.5) (±0.6)	Meter Type	131		NO.				Flow Till C	en voi (ini.):	300
Time (ft) (drawdown (mV) (±10.1) (±2.1) (±3%) (±	INSTRUMI	ENT MEASURE	MENTS:			Start time	: 1437			Stop time: 1600
Time (ft) (drawdown (mV) (±10.1) (±2.1) (±3%) (±		Donath to most on	OPP		C C1	DO (mg/L)		Turbidity (ntu)	Flow	
\$\langle \begin{array}{ c c c c c c c c c c c c c c c c c c c	Timo	-		pH (s.u.)			Temp. (°C)			Notes
1438	Time			(±0.1)			(±3%)	`	` ,	Notes
1455	1.420			0.06	` /		0.57	,	, ,	
1531							+			
1554										
1557		+								
1600							_			
Analysis Method No. bottles Bottle type Volume Preservation Handling VOC 8260 3 VOA 40 ml HCL on ice										
Analysis Method No. bottles Bottle type Volume Preservation Handling VOC 8260 3 VOA 40 ml HCL on ice AMPLE OBSERVATIONS Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons	1000	11.70	05.10	0.02	310	0.10	0.15	170.1	230	
Analysis Method No. bottles Bottle type Volume Preservation Handling VOC 8260 3 VOA 40 ml HCL on ice AMPLE OBSERVATIONS Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons										
Analysis Method No. bottles Bottle type Volume Preservation Handling VOC 8260 3 VOA 40 ml HCL on ice AMPLE OBSERVATIONS Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons										
Analysis Method No. bottles Bottle type Volume Preservation Handling VOC 8260 3 VOA 40 ml HCL on ice AMPLE OBSERVATIONS Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons										
Analysis Method No. bottles Bottle type Volume Preservation Handling VOC 8260 3 VOA 40 ml HCL on ice AMPLE OBSERVATIONS Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons										
Analysis Method No. bottles Bottle type Volume Preservation Handling VOC 8260 3 VOA 40 ml HCL on ice AMPLE OBSERVATIONS Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons	CAMPIE	EGENIG DIEGO	A CAPTON	-			G 1.4	1.000		
VOC 8260 3 VOA 40 ml HCL on ice SAMPLE OBSERVATIONS Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons	SAMPLE 1	ESTING INFOR	MATION				Sample time:	1600		
SAMPLE OBSERVATIONS Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons	Analys	sis Me	ethod	No. bottles	Bottle	type	Volume	Preservation		Handling
Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons	VOC	S 8:	260	3	VO.	A	40 ml	HCL		on ice
Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons										
Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons							<u> </u>			<u> </u>
Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons										
Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons										
Color none Odor none Clarity cloudy Purge Volume: 7 gallons Tubing Volume: 0.1 gallons	SAMPLE O	BSERVATIONS	;							
Tubing Volume: 0.1 gallons	Color		-	none	Clarity	cloudy	Pur	ge Volume:	7	gallons
						ž			0.1	
	Notes:	Water purge star	ted with ru	sty color, clear	red over time.	Trace sheen.		-		· =
		-								
			<u>-</u>							

File No.	3	3554.01						ID:	GZA-301D	
Project	642	Allens Ave	2				Sample D	Date:	3/21/2018	
Location	City: Providen	ice	State: RI				Sampler's na	ime:	EN	
Weather:	C	loudy 40's								
WATER LI	EVEL OBSERVA	TIONS			mea	surement date/ti	me:	3/21/18 - 1130)	
Point of mea	surement	P	VC Riser X	Casing	Ground	7				
Total well de			11	29.70			Standing water in	well (feet)		25.48
Depth to LN				-			Well Diamter (in		-	2
Depth to wat				4.22			Sample Depth (fe			25
Depth to DN				-			Standpipe TPVC		et)	-
Well Screen				20 to 30			Roadbox TPVC t			-
						-				
Well Conditi	ion:	Protectiv	ve casing	poor X	good l	Expansion cap	X yes	no Well ID	yes X	no
			lock	yes X	no Co	oncrete Collar	X yes	no Well	poor X	good
EQUIPME	<u>NT</u>				_					
					e Method:	Bailer	X Pump /	X Low Flow	W	
Pump Type	: geopump)	No.	2						
Meter Type	YSI YSI		No.	2			Flow Thru Co	ell Vol (mL):	300	_
INSTRUMI	ENT MEASURE	MENTS:			Start tim	e: 1205			Stop time:	1245
	Depth to water	ORP		Spec. Cond	DO (mg/L)		Turbidity (ntu)	Flow		
Time	(ft) (drawdown	(mV)	pH (s.u.)	(μS/cm)	(±10% or 3 rd	Temp. (°C)	(±10% or <5	(mL/min)	Note	es
Time	<0.3 or stable)	(±10)	(±0.1)	(±3%)	<0.5)	(±3%)	ntu)	(<500)	1,01	
1217	9.24	12.9	6.26	3972	4.19	8.78	4.00	200		
1222	9.25	12.1	6.66	1475	2.40	11.06	4.00	200		
1228	9.26	-22.9	6.65	1495	2.33	11.11	4.00	200		
1233	9.27	-28.3	6.65	1508	2.18	11.16	4.00	200		
1238	9.30	-31.6	6.66	1515	1.82	11.36	2.1	200		
1242	9.30	-33.9	6.65	1516	1.78	11.44	3.6	200		
1245	9.30	-34.5	6.65	1516	1.78	11.45	1.4	200		
SAMPLE T	ESTING INFOR	MATION				Sample time:	1245			
Analys	sis Me	ethod	No. bottles	Bottle	type	Volume	Preservation		Handling	
VOC		260	3	VO		40 ml	HCL		on ice	
SAMPLE O	BSERVATIONS	;								
Color	none	Odor	none	Clarity	clear	Pur	ge Volume:	3.5	gallons	
						Tubi	ng Volume:		gallons	
Notes:									·	
					<u> </u>	<u> </u>			<u> </u>	

File No.	3	33554.01					Well	ID:	GZA-309D		
Project	642	Allens Ave	е				Sample D	Pate:	3/21/2018		
Location	City: Providen	ice	State: RI				Sampler's na	ime:	EN		
Weather:	C	loudy 40's									
WATER LI	EVEL OBSERVA	TIONS			mea	surement date/ti	ime:	3/21/18 - 1100)		
Point of mea	surement	P	VC Riser X	Casing	Ground	7					
Total well de		-	, e ruser 71	29.90	Ground		Standing water in	well (feet)	26.25		
Depth to LN				-			Well Diamter (in		2		
Depth to wa				3.65			Sample Depth (fe		25		
Depth to DN			-	-			Standpipe TPVC	-			
Well Screen				20 to 30			Roadbox TPVC				
						_			<u></u>		
Well Condit	ion:	Protectiv	ve casing	poor X	good	Expansion cap	X yes	no Well ID	X yes no		
			lock	yes X	no C	oncrete Collar	X yes	no Well	poor X good		
EQUIPME	NT										
<u>ngenina</u>	<u>.,,,</u>			Sampl	e Method:	Bailer	X Pump /	X Low Flor	W		
Pump Type	geopump)	No.				^ I				
Meter Type	e: YSI		No.	2			Flow Thru C	ell Vol (mL):	300		
	-			_		1010					
INSTRUM	ENT MEASURE	MENTS:			Start tim	ne: 1049			Stop time: 1118		
	Depth to water	ORP	-II ()	Spec. Cond	DO (mg/L)	T. (8C)	Turbidity (ntu)	Flow			
Time	(ft) (drawdown	(mV)	pH (s.u.)	(µS/cm)	(±10% or 3 rd	s Temp. (°C)	(±10% or <5	(mL/min)	Notes		
	<0.3 or stable)	(±10)	(±0.1)	(±3%)	< 0.5)	(±3%)	ntu)	(<500)			
1104	6.05	-65.4	7.31	2309	4.24	10.92	1.9	200			
1111	8.80	-76.4	7.31	2244	5.07	11.13	0.1	200			
1114	6.84	-82.5	7.32	2191	4.81	11.17	0.7	200			
1118	7.16	-85.9	7.32	2180	4.56	11.29	0.4	200			
	+										
SAMPLE T	ESTING INFOR	MATION				Sample time:	1118				
Analy		ethod	No. bottles	Bottle	type	Volume	Preservation		Handling		
VOC	2 8	260	3	VO	A	40 ml	HCL		on ice		
<u> </u>	- 										
	<u> </u>										
SAMPLE C	DBSERVATIONS	<u>S</u>									
Color	slightly black	Odor	none	Clarity	clear		ge Volume:	2	gallons		
						Tubi	ng Volume:	0.2	gallons		
Notes:											

File No.	3	3554.01						ID:	GZA-319D	
Project	642	Allens Ave	•				Sample D	Date:	3/21/2018	
Location	City: Providen	ice	State: RI				Sampler's na	ime:	RH / EN	
Weather:		loudy 40's					•			
WATER LI	EVEL OBSERVA	TIONS			mea	surement date/ti	ime: 0	3/21/18 - 0829	9	
Point of mea	asurement	p'	VC Riser X	Casing	Ground					
Total well de			ve ruser A	32.30	Ground		Standing water in	well (feet)	23.29	
Depth to LN				-			Well Diamter (in		2	
Depth to war				9.01			Sample Depth (fe		25	
Depth to DN				-			Standpipe TPVC	-		
Well Screen				20 to 30			Roadbox TPVC			
	, 0,							•		
Well Condit	ion:	Protectiv	ve casing	poor X	good	Expansion cap	X yes	no Well ID	yes X no	
			lock X	VAC	no C	oncrete Collar	X yes	no Well	poor X good	
			lock A	yes	110	onerete conar	A yes	no wen	poor A good	
EQUIPME	<u>NT</u>									
					e Method:	Bailer	X Pump /	X Low Flor	W	
Pump Type	geopump)	No.	2						
Meter Type	YSI YSI		No.	2			Flow Thru C	ell Vol (mL):	300	
INSTRUMI	ENT MEASURE	MENTS.			Start tim	ne: 0831			Stop time: 0927	
INSTRUMI	ENT WEASURE	VIENTO.			Start till	le. 0831			3top time. 0927	
	Depth to water	ORP	pH (s.u.)	Spec. Cond	DO (mg/L)	Temp. (°C)	Turbidity (ntu)	Flow		
Time	(ft) (drawdown	(mV)	(±0.1)	(µS/cm)	(±10% or 3 rd	ls (±3%)	(±10% or <5	(mL/min)	Notes	
	<0.3 or stable)	(±10)	(±0.1)	(±3%)	<0.5)	(±3%)	ntu)	(<500)		
0841	9.19	119.2	6.43	860	8.84	8.76	24.3	200		
0912	9.21	-34.4	6.68	893	1.86	9.62	12.2	200		
0918	9.23	-39.2	6.64	894	1.74	9.47	10.8	200		
0924	9.19	-42.1	6.65	897	1.62	9.43	11.0	200		
0927	9.19	-43.0	6.68	896	1.58	9.46	10.9	200		
GANGE E	TECTRIC DIFOR	A CATTONI				G 1 1	0025			
SAMPLE I	TESTING INFOR	MATION				Sample time:	0927			
Analy		ethod	No. bottles	Bottle	**	Volume	Preservation		Handling	
VOC	C 8:	260	3	VO	A	40 ml	HCL		on ice	
-										
 	 				+					
					l.					
	DBSERVATIONS	-								
Color	none	Odor	none	Clarity	clear		ge Volume:	2.5	gallons	
3.T		0 11	0 25			Tubi	ng Volume:	0.2	gallons	
Notes:	BD 3211	8 collected	1 at 9:27							

File No.	3	3554.01					Well	ID:	RCA-1
Project	642	Allens Ave	•	•			Sample D	Date:	3/21/2018
Location	City: Providen	ce	State: RI	•			Sampler's na	ime:	ROH
Weather:	Cl	loudy 40's							
WATER LI	EVEL OBSERVA	TIONS			meas	urement date/ti	ime: 0	3/21/18 - 1117	7
Point of mea			VC Riser X	Casing	Ground	7			
Total well de		1	V C Risci A	14.75	Ground	_	Standing water in	wall (feet)	9.55
Depth to LN				-			Well Diamter (in		2
Depth to Ex				5.20			Sample Depth (fe	*	11.5
Depth to Wa				5.20			Standpipe TPVC	-	
Well Screen				6.5 to 16.5			Roadbox TPVC t		
Well Beleen	(1001 080)			0.0 10 10.0			1100000011110	o orouna (ree	
Well Condit	tion:	Protectiv	ve casing	poor X	good E	xpansion cap	X yes	no Well ID	yes X no
			lock	yes X	no Co	ncrete Collar	X yes	no Well	poor X good
EQUIPME	NT						,		
EQUITATE	111			Sampl	e Method:	Bailer	X Pump /	X Low Flow	W
Pump Type	e: geopump)	No.						
Meter Type	e: YSI		No.	2			Flow Thru Co	ell Vol (mL):	300
			1101				11011 1111111 01	on , or (m2),	-
INSTRUM	ENT MEASURE	MENTS:			Start time	: 1120			Stop time: 1206
	Depth to water	ORP	ъU (c u)	Spec. Cond	DO (mg/L)	Tomas (°C)	Turbidity (ntu)	Flow	
Time	(ft) (drawdown	(mV)	pH (s.u.) (±0.1)	(µS/cm)	(±10% or 3 rds	Temp. (°C)	(±10% or <5	(mL/min)	Notes
	<0.3 or stable)	(±10)	(±0.1)	(±3%)	< 0.5)	(±3%)	ntu)	(<500)	
1148	5.38	-47.1	7.85	879	3.79	9.77	19.2	200	
1154	5.40	-34.4	7.21	806	0.89	9.58	8.1	200	
1157	5.40	34.3	7.15	740	0.79	9.61	7.5	200	
1200	5.40	-29.1	7.10	767	0.30	9.65	7.2	200	
1203	5.40	-28.7	7.08	760	0.37	9.59	7.0	200	
1206	5.40	-29.0	7.07	755	0.39	9.58	6.9	200	
	1								
	+								
CAMDIET	TESTING INFOR	MATION		<u>.</u>	•	Sample time:	1206	<u> </u>	
	•		_						
Analy		ethod	No. bottles	Bottle		Volume	Preservation		Handling
VOC	2 82	260	3	VO	A	40 ml	HCL		on ice
	-				+				
					+				
CAMPIE 6	DOEDLI FIONG			<u> </u>	I		I.	<u>l</u>	
	DBSERVATIONS	•		Clarita.	.1	D	37 - 1	2	11
Color	none	Odor	none	Clarity	clear		rge Volume: ng Volume:		gallons
Notes:						1 uDi	ng volume:	0.1	gallons
Notes.									
-									-

File No.	3	3554.01						ID:	RCA-12R
Project	642	Allens Ave	е				Sample D	Pate:	3/21/2018
Location	City: Providen	ice	State: RI				Sampler's na	ime:	EN / RH
Weather:		loudy 40's					•		
WATER LI	EVEL OBSERVA	TIONS			mea	surement date/ti	ime:3	3/21/18 - 12:00)
Point of mea	surement	P	VC Riser X	Casing	Ground	1			
Total well de			11	14.52			Standing water in	well (feet)	5.56
Depth to LN				-			Well Diamter (in		2
Depth to war				8.96			Sample Depth (fe		10
Depth to DN				-			Standpipe TPVC	-	eet) -
Well Screen				5 to 15			Roadbox TPVC t		
Well Condit	ion:	Protectiv	ve casing	poor X	good l	Expansion cap	X yes	no Well ID	yes X no
			lock	yes X	no Co	oncrete Collar	X yes	no Well	poor X good
EQUIPME	NT_			·		_			
D T			N T		e Method:	Bailer	X Pump /	X Low Flor	w
Pump Type	geopump)	No.	2					
Meter Type	YSI YSI		No.	2			Flow Thru Co	ell Vol (mL):	300
INSTRUMI	ENT MEASURE	MENTS:			Start tim	e: 1225			Stop time: 1308
	Depth to water	ORP	·	Spec. Cond	DO (mg/L)		Turbidity (ntu)	Flow	
Time	(ft) (drawdown	(mV)	pH (s.u.)	(µS/cm)	(±10% or 3 rd	Temp. (°C)	(±10% or <5	(mL/min)	Notes
	<0.3 or stable)	(±10)	(±0.1)	(±3%)	<0.5)	(±3%)	ntu)	(<500)	
1253	8.97	17.5	6.27	8026	5.55	9.55	12.1	200	
1256	8.97	23.3	6.23	8177	3.48	9.40	15.2	200	
1259	8.97	31.3	6.20	8244	3.19	9.51	14.3	200	
1302	8.97	35.9	6.19	8265	2.93	9.46	11.6	200	
1305	8.97	42.0	6.17	8270	2.87	9.43	12.6	200	
1308	8.98	44.9	6.17	8268	2.85	9.44	12.9	200	
SAMPLE T	TESTING INFOR	MATION				Sample time:	1308		
		ethod	No. bottles	Bottle	tuno	Volume	Preservation		Handling
Analy: VOC		260	3	VO		40 ml	HCL		on ice
700	0.	200	3	10.		40 III	HCL		on icc
SAMPLE O	DBSERVATIONS	.							
Color	none	Odor	none	Clarity	clear	Pur	ge Volume:	3.5	gallons
		O GOT	none	Cimity	- Cicui		ng Volume:		gallons
Notes:									,~
·	·		<u></u>	·	· · · · · · · · · · · · · · · · · · ·		·	·	

File No.	3	33554.01					Well	l ID:	RCA-15	
Project	642	Allens Ave	9				Sample D	Date:		
Location	City: Provider		State: RI				Sampler's na		CL	
Weather:		loudy 40's					1			
WATER LI	EVEL OBSERVA	TIONS			me	asurement date/ti	me:	3/21/18 - 0850		
Point of mea	isurement	p	VC Riser X	Casing	Ground	\neg				
Total well de			v C Risci A	17.90	Ground		Standing water in	a wall (feet)	10.4	15
Depth to LN			-	-			Well Diamter (in		2	+3
Depth to war				7.45			Sample Depth (fe		9	
Depth to DN				-			Standpipe TPVC			
Well Screen				4 to 14			Roadbox TPVC			
	(-			(
Well Condit	ion:	Protectiv	ve casing	poor X	good	Expansion cap	X yes	no Well ID	yes X no	
			lo alv X			Concrete Collar	V 1100	no Well		1
			lock X	yes	no	Concrete Conar	X yes	no Well	poor X good	ı
EQUIPME	<u>NT</u>					— 1 1	- I			
D T		_	N.		e Method:	Bailer	X Pump /	X Low Flow	N .	
Pump Type)	No.		_					
Meter Type	YSI YSI		No.	2			Flow Thru C	ell Vol (mL):	300	
INSTRUMI	ENT MEASURE	MENTS:			Start ti	me: 0905			Stop time: 095	5
	1	,							1	
	Depth to water	ORP	pH (s.u.)	Spec. Cond	DO (mg/L)	Tamp ('(')	Turbidity (ntu)	Flow		
Time	(ft) (drawdown	(mV)	(±0.1)	(µS/cm)	(±10% or 3 r	(±3%)	(±10% or <5	(mL/min)	Notes	
	<0.3 or stable)	(±10)		(±3%)	<0.5)		ntu)	(<500)		
0905	7.45	130	6.30	594	1.27	7.3	480	250		
0945	7.45	124	5.92	609	0.37	7.7	23	250		
0948	7.46	124	5.90	616	0.37	7.7	25	250		
0955	7.46	124	5.90	609	0.36	7.7	23	250		
SAMPLE T	ESTING INFOR	MATION			•	Sample time:	0955			
Analy	eie M	ethod	No. bottles	Bottle	tyne	Volume	Preservation		Handling	
VOC		260	3	VO	**	40 ml	HCL		on ice	
, , ,		200		, 0.	-	. 0	1102		011 100	
SAMPLE C	DBSERVATIONS	1								
Color	rusty tint	Odor	none	Clarity	clear	Pur	ge Volume:	4	gallons	
00101	rusty tint	ouor	none	Charty	0.104.1		ng Volume:		gallons	
Notes:									_	
	· · · · · · · · · · · · · · · · · · ·					· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			

File No.	3	33554.01					Wel	ID:	RCA-2	2
Project	642	Allens Ave)				Sample D	Date:	3/21/20	18
Location	City: Providen		State: RI				Sampler's na	ame:	RH / E	N
Weather:	C	loudy 40's								
WATER LE	EVEL OBSERVA	TIONS			meas	urement date/ti	ime: 0	3/21/18 - 074	1	
Point of mea	surement	P'	VC Riser X	Casing	Ground	7				
Total well de		_	71	12.80			Standing water in	well (feet)		4.14
Depth to LN				-			Well Diamter (in		•	2
Depth to wat				8.66			Sample Depth (fe		•	11
Depth to DN				-			Standpipe TPVC	-	eet)	-
Well Screen				3 to 13			Roadbox TPVC			-
								`	· .	
Well Conditi	ion:	Protectiv	ve casing	poor X	good F	expansion cap	X yes	no Well ID	yes	X no
			lock X	yes	no Co	ncrete Collar	X yes	no Well	poor	X good
EQUIPMEN	NT				4					<u></u>
EQUITINE				Sampl	e Method:	Bailer	X Pump /	X Low Flor	w	
Pump Type	: geopump	,	No.							
Meter Type	: YSI		No.	2			Flow Thru C	ell Vol (mL):	300	
	-		110.				11011 11114 0	cii voi (iiiii).		
INSTRUMI	ENT MEASURE	MENTS:			Start time	2: 0811			Stop time:	0855
	Depth to water	ORP		Spec. Cond	DO (mg/L)		Turbidity (ntu)	Flow		
Time	(ft) (drawdown	(mV)	pH (s.u.)	(µS/cm)	(±10% or 3 rds	Temp. (°C)	(±10% or <5	(mL/min)	N	lotes
	<0.3 or stable)	(±10)	(±0.1)	(±3%)	<0.5)	(±3%)	ntu)	(<500)		
0814	9.25	-52.5	7.46	1194	5.09	7.83	18.7	200		
0845	9.25	-120.1	7.29	1233	0.30	8.71	8.7	200		
0848	9.25	-119.2	7.30	1241	0.29	8.79	7.1	200		
0851	9.21	-122.5	7.31	1260	0.26	8.81	6.6	200		
0855	9.20	-124.3	7.31	1268	0.27	8.78	6.3	200		
SAMPLE T	ESTING INFOR	MATION				Sample time:	0855			
Analys	eie Ma	ethod	No. bottles	Bottle	tyne	Volume	Preservation		Handlii	nor.
VOC		260	3	VO.	**	40 ml	HCL		on ice	
100	3	200	3	* 0.		40 III	HeL	_	on rec	·
SAMPLEO	BSERVATIONS	1								
Color	none	<u>,</u> Odor	none	Clarity	clear	Pur	rge Volume:	3	gallons	
23101		0401		Caurity			ing Volume:	0.1	gallons	
Notes:						2 401		**-		
	mple at midpoint	of screen du	ue to lack of w	ater in well.	Collected sample	at 11 ft. bags.				
						<u> </u>				

File No.	3	33554.01					Well	ID:	RCA-34
Project	642	Allens Ave	e				Sample D	ate:	3/20/2018
Location	City: Provider		State: RI	•			Sampler's na	me:	CL / RH / EN
Weather:	C	loudy 40's		•					
WATER LE	EVEL OBSERVA	TIONS			measu	rement date/t	ime: 0	3/20/18 - 1515	5
Point of meas	surement	P	VC Riser X	Casing	Ground	1			
Total well de				12.90			Standing water in	well (feet)	4.18
Depth to LN				-			Well Diamter (in		2
Depth to wat				8.72			Sample Depth (fe	*	
Depth to DN				-			Standpipe TPVC		et) -
Vell Screen				13 to 18			Roadbox TPVC t		
Well Conditi	on:	Protectiv	ve casing	poor X	good Ex	xpansion cap	yes X	no Well ID	yes X no
			lock X	yes		crete Collar		no Well	poor X good
EQUIPMEN	<u>NT</u>				•				
						Bailer	X Pump /	X Low Flow	
Pump Type:	geopum)	No.	2	·				
Meter Type:	YSI YSI		No.	2			Flow Thru C	ell Vol (mL):	300
NSTRUME	ENT MEASURE	MENTS:			Start time:	1519			Stop time:
	Depth to water	ORP	pH (s.u.)	Spec. Cond	DO (mg/L)	Tomm (°C)	Turbidity (ntu)	Flow	
Time	(ft) (drawdown	(mV)	(±0.1)	(µS/cm)	(±10% or 3 rds	Temp. (°C)	(±10% or <5	(mL/min)	Notes
	<0.3 or stable)	(±10)	(±0.1)	(±3%)	< 0.5)	(±3%)	ntu)	(<500)	
1520	12.59	109.6	8.95	45/34	1614	8.62	27.34	250	Well went dry
1530	-	-	-	-	-	-	-	-	
AMDI E T	ESTING INFOR	MATION			<u> </u>	Sample time:			
			•	D1					
Analys	SIS Me	ethod	No. bottles	Bottle	type	Volume	Preservation		Handling
AMDLEO	BSERVATIONS	,			<u> </u>		Į.		
Color	none	Odor	none	Clarity	clear	Dur	ge Volume:	1	gallons
.0101	HOHE	Juoi	HOHE	Ciarny	Cicai		ng Volume:	0.1	gallons
Notes:	Well went dry at	1530. Afte	er 1hr only 0.4	ft of water in v	vell. Unable to sar			VI.	S
	, , , , , , , , , , , , , , , , , , ,		,			•			

File No. Project		33554.01 Allens Ave				Well ID: RCA-36 Sample Date: 3/19/2018			RCA-36 3/19/2018	
Location	City: Providen		State: RI				Sampler's na		RH / CL / EN	
Weather:	C.	loudy 40's		•						
WATER LI	EVEL OBSERVA	TIONS			measu	rement date/ti	ime: 0	3/19/18 - 134	4	
Point of mea Total well de Depth to LN Depth to wat Depth to DN Well Screen Well Conditi	epth (feet) APL (feet) ter (feet) IAPL (feet) (feet bgs)	P' Protectiv	VC Riser X	13.30 - 10.90 - 5 to 15			Standing water in well (feet) Well Diamter (in.) Sample Depth (feet bgs) Standpipe TPVC to Ground (feet) Roadbox TPVC to Ground (feet) Expansion cap yes X no Well ID yes			
			lock	yes X	no Co i	icrete Collar	X yes	no Well	poor X good	
EQUIPME	NT		P		1					
Pump Type)	No.		e Method:	Bailer	X Pump /	X Low Flor	W	
Meter Type		6920	No.				Flow Thru C	ell Vol (mL):	300	
INSTRUMI	ENT MEASURE	MENTS:			Start time:	1355			Stop time: 1546	
Time	Depth to water (ft) (drawdown	ORP (mV) (±10)	pH (s.u.) (±0.1)	Spec. Cond (µS/cm)	DO (mg/L) (±10% or 3 rds <0.5)	Temp. (°C) (±3%)	Turbidity (ntu) (±10% or <5 ntu)	Flow (mL/min) (<500)	Notes	
1400	<0.3 or stable) 11.00	83.7	6.41	(±3%) 8459/5.600	3.98	7.44	39.5	200		
1405	11.03	69.8	6.37	8539/5.651	1.47	7.29	29.2	200		
1450	11.76	23.5	6.31	36504/23.62	2.35	7.10	2.2	200		
1500	11.51	44.7	6.29	43876/29.02	2.70	7.05	11.1	200		
1540	11.60	81.6	6.34	54621/36.11	3.07	6.85	0.9	200		
1543	11.59	48.8	6.35	55544/36.25	3.05	6.88	1.4	200		
1546	11.61	47.8	6.36	55869/36.72	3.00	6.87	2.0	200		
SAMPLE T	ESTING INFOR	MATION				Sample time:	1546			
Analys	sis Me	ethod	No. bottles	Bottle t	vne.	Volume	Preservation		Handling	
VOC		260	3	VOA		40 ml	HCL		on ice	
<u> </u>										
Color	DBSERVATIONS none	Odor	none	Clarity	clear	Tubi	rge Volume:	4 0.1	gallons gallons	
Notes:	Could not sample	e at middle	or screen due	to lack of water	ater in wel Colle	ected sample a	t 15 ft. bags.			
		_								

File No.	3	3554.01					Well	I ID:	VHB-1
Project	642	Allens Ave	•				Sample D	Date:	3/21/2018
Location	City: Providen	ce	State: RI				Sampler's na	ame:	EN
Weather:	C	loudy 40's							
WATER LI	EVEL OBSERVA	TIONS			mea	surement date/ti	ime:	3/24/18 - 1100)
Point of mea	surement	P'	VC Riser X	Casing	Ground	7			
Total well de		•	, e raser 71	11.37	Ground		Standing water in	well (feet)	8.23
Depth to LN				-			Well Diamter (in		2
Depth to war				3.14			Sample Depth (fe		7
Depth to DN				_			Standpipe TPVC	-	
Well Screen				2 to 12			Roadbox TPVC		
						_			<u></u>
Well Condit	ion:	Protectiv	ve casing	poor X	good 1	Expansion cap	X yes	no Well ID	X yes no
			lock	yes X	no C	oncrete Collar	X yes	no Well	poor X good
EQUIPME	NT					ı		ı	
				Sampl	e Method:	Bailer	X Pump /	X Low Flor	w
Pump Type	: geopump)	No.	2			<u> </u>		
Meter Type	: YSI		No.	2			Flow Thru C	ell Vol (mL):	300
INSTRUMI	ENT MEASURE	MENTS:			Start tim	e: 1110			Stop time: 1154
			1		1			_	
	Depth to water	ORP	pH (s.u.)	Spec. Cond	DO (mg/L)	Temp. (°C)	Turbidity (ntu)	Flow	37.
Time	(ft) (drawdown	(mV)	(±0.1)	(µS/cm)	(±10% or 3 rd	s (±3%)	(±10% or <5	(mL/min)	Notes
	<0.3 or stable)	(±10)		(±3%)	<0.5)		ntu)	(<500)	
1121	3.55	1.3	6.27	4361	5.18	9.27	59.5	200	
1125	3.59	8.7	6.23	4283	4.84	9.29	42.7	200	
1140	3.52	11.5	6.24	4175	4.61	9.19	43.0	200	
1146 1154	3.48 3.42	12.4 12.9	6.25 6.26	4066 3995	4.13 3.98	8.83 8.80	43.5 37.2	200 200	
1134	3.42	12.9	0.20	3993	3.96	0.00	31.2	200	
SAMPLE T	ESTING INFOR	MATION				Sample time:	1154		
Analy	sis Me	ethod	No. bottles	Bottle	tyne	Volume	Preservation		Handling
VOC		260	3	VO	**	40 ml	HCL		on ice
						-	_		
SAMPLE O	BSERVATIONS	}							
Color	none	Odor	none	Clarity	Clear	Pur	ge Volume:	3	gallons
				· · · ·			ng Volume:	0.1	gallons
Notes:									•

File No.	3	3554.01					Well	ID:	VHB-20
Project	642	Allens Ave	•				Sample D	Pate:	3/21/2018
Location	City: Providen	ice	State: RI				Sampler's na	ime:	RH / EN
Weather:	C	loudy 40's							
WATER LI	EVEL OBSERVA	TIONS			meas	urement date/ti	ime: 0	3/21/18 - 082	3
Point of mea	surement	P	VC Riser X	Casing	Ground	7			
Total well de		-	, e ruser 21	17.50	Ground		Standing water in	well (feet)	9.71
Depth to LN				-			Well Diamter (in		2
Depth to wa				7.79			Sample Depth (fe		11
Depth to DN				-			Standpipe TPVC	-	
Well Screen				6 to 16			Roadbox TPVC		
						_			<u></u>
Well Condit	ion:	Protectiv	ve casing	poor X	good E	Expansion cap	X yes	no Well ID	X yes no
			lock	yes X	no Co	ncrete Collar	X yes	no Well	poor X good
EQUIPME	NT								1 110
<u> </u>				Sampl	e Method:	Bailer	X Pump /	X Low Flor	w
Pump Type	geopump)	No.				^ I		
Meter Type	YSI		No.	2			Flow Thru C	ell Vol (mL):	300
	-		- 1 - 1	_		0025			
INSTRUM	ENT MEASURE	MENTS:			Start time	e: <u>0827</u>			Stop time: 0953
	Depth to water	ORP	TI (Spec. Cond	DO (mg/L)	T. (16)	Turbidity (ntu)	Flow	
Time	(ft) (drawdown	(mV)	pH (s.u.)	(µS/cm)	(±10% or 3 rds	Temp. (°C)	(±10% or <5	(mL/min)	Notes
	<0.3 or stable)	(±10)	(±0.1)	(±3%)	<0.5)	(±3%)	ntu)	(<500)	
0833	8.20	264.4	6.16	725	5.31	7.58	64.9	200	
0921	8.20	193.2	6.03	879	2.45	7.11	7.8	200	
0934	8.05	216.2	5.91	1103	1.82	7.05	5.2	200	
0943	8.04	227.2	5.93	1098	1.63	7.10	7.2	200	
0950	8.04	228.4	5.94	1086	1.56	7.12	7.2	200	
0953	8.04	228.1	5.95	1092	1.52	7.10	7.2	200	
SAMPLE T	ESTING INFOR	MATION				Sample time:	0953		
Analy	sis Me	ethod	No. bottles	Bottle	type	Volume	Preservation		Handling
VOC		260	3	VO	••	40 ml	HCL		on ice
SAMPLE C	DBSERVATIONS	5							
Color	none	Odor	none	Clarity	clear	Pur	ge Volume:	8.5	gallons
						Tubi	ng Volume:	0.1	gallons
Notes:									

File No.	33554.01	L		<u></u>		Page:		1 of 3
Project:	642 Allens	Avenue				Date:		3/20/2018
Location:	City: Provid	ence State: RI		_		_		
LOW FLOW	CALIBRATIC	<u>N:</u> YSI 6820 - SN 04	C2280AE					
Intial Readin	ng:							
Specific Cond	ductance:	Instrument and Number:	YSI			ļ	Reading:	971
pH (s.u.):		Instrument and Number:	YSI			1	Reading:	4.11 / 7.07 / 10.00
DO (%):		Instrument and Number:	YSI	_		1	Reading:	111.8
ORP (mvolts	s:)	Instrument and Number:	YSI	_		1	Reading:	237.2
Turbidity (N	TU):	Instrument and Number:	Lamotte	-		ı	Reading:	-1.2 / 117.2
Calibration:								
Specific Cond	ductance:	Instrument and Number:	YSI	Standard Solution:	1000		Reading:	1000
pH (s.u.):		Instrument and Number:	YSI	Standard Solution:	4/7/10		Reading:	4.00 / 7.00 / 10.00
DO (%):		Instrument and Number:	YSI	Standard Solution:	100%		Reading:	100
ORP (mvolts	s:)	Instrument and Number:	YSI	Standard Solution:	237.5		Reading:	238

Standard Solution:

0/126

Lamotte

0.0 / 126.0

Reading:

Turbidity (NTU):

File No. 33554	.01		<u></u>	Pa	ge:	2 of 3
Project: 642 Aller	ns Avenue			Da	ite:	3/20/2018
Location: City: Pro	vidence State: RI		_			
LOW FLOW CALIBRA	ΓΙΟΝ: YSI 6820 - SN 02	J10124AD				
latial Bandina.						
Intial Reading:						
Specific Conductance	: Instrument and Number:	YSI			Reading:	1053
pH (s.u.):	Instrument and Number:	YSI			Reading:	4.12 / 6.71 / 10.25
DO (%):	Instrument and Number:	YSI			Reading:	108.6
ORP (mvolts:)	Instrument and Number:	YSI	<u> </u>		Reading:	214.1
Turbidity (NTU):	Instrument and Number:	Lamotte	_		Reading:	0.8 / 125.5
<u>Calibration:</u>						
Specific Conductance	: Instrument and Number:	YSI	Standard Solution:	1000	Reading:	1000
pH (s.u.):	Instrument and Number:	YSI	Standard Solution:	4/7/10	Reading:	4.00 / 7.00 / 10.02
DO (%):	Instrument and Number:	YSI	Standard Solution:	100%	Reading:	100
ORP (mvolts:)	Instrument and Number:	YSI	Standard Solution:	237.5	Reading:	238.00

Standard Solution:

0/126

Lamotte

0.0 / 126.0

Reading:

Turbidity (NTU):

File No. 33554.0	01		<u></u>		Page:	3 of 3
Project: 642 Allens	Avenue				Date:	3/20/2018
Location: City: Provi	dence State: RI		_			
LOW FLOW CALIBRATI	ON: YSI 6820 - SN 09	8B1377AB				
Intial Reading:						
Specific Conductance:	Instrument and Number:	YSI			Reading:	1033
pH (s.u.):	Instrument and Number:	YSI	_		Reading:	4.03 / 6.99 / 10.06
DO (%):	Instrument and Number:	YSI	_		Reading:	108.1
ORP (mvolts:)	Instrument and Number:	YSI	_		Reading:	220.5
Turbidity (NTU):	Instrument and Number:	Lamotte	-		Reading:	0.4 / 121.0
Calibration:						
Specific Conductance:	Instrument and Number:	YSI	Standard Solution:	1000	Reading:	1000
pH (s.u.):	Instrument and Number:	YSI	Standard Solution:	4/7/10	Reading:	4.00 / 7.00 / 10.00
DO (%):	Instrument and Number:	YSI	Standard Solution:	100%	Reading:	100
ORP (mvolts:)	Instrument and Number:	YSI	Standard Solution:	237.5	Reading:	238

Standard Solution:

0/126

Lamotte

0.0 / 126.0

Reading:

Turbidity (NTU):

File No. 33554	.01		<u></u>		Page:		1 of 3
Project: 642 Alle	ns Avenue		<u> </u>		Date:		3/21/2018
Location: City: Pro	vidence State: RI		_				
LOW FLOW CALIBRA	TION: YSI 6820 - SN 04	C2280AE					
Intial Reading:							
Specific Conductance	: Instrument and Number:	YSI			Re	eading:	971
pH (s.u.):	Instrument and Number:	YSI			Re	eading:	4.04 / 7.00 / 10.04
DO (%):	Instrument and Number:	YSI	_		Re	eading:	99.1
ORP (mvolts:)	Instrument and Number:	YSI	_		Re	eading:	237.6
Turbidity (NTU):	Instrument and Number:	Lamotte	_		Re	eading:	0.5 / 119.6
Calibration:							
Specific Conductance	: Instrument and Number:	YSI	Standard Solution:	1000	Re	eading:	1000
oH (s.u.):	Instrument and Number:	YSI	Standard Solution:	4/7/10	Re	eading:	4.00 / 7.00 / 10.00
DO (%):	Instrument and Number:	YSI	Standard Solution:	100%	Re	eading:	99.3
ORP (mvolts:)	Instrument and Number:	YSI	Standard Solution:	237.5	Re	eading:	238

Lamotte Standard Solution:

0 / 126

0.0 / 126.0

Reading:

Turbidity (NTU):

File No.	33554.0	1		<u></u>	P	age:	2 of 3
Project:	642 Allens	Avenue			Г	Date:	3/21/2018
Location:	City: Provid	dence State: RI		_			
LOW FLOV	V CALIBRATIO	<u>ON:</u> YSI 6820 - SN 02.	I10124AD				
Intial Read	ling:						
Specific Co	onductance:	Instrument and Number:	YSI			Reading:	986
pH (s.u.):		Instrument and Number:	YSI	<u> </u>		Reading:	3.99 / 6.92 / 10.02
DO (%):		Instrument and Number:	YSI	_		Reading:	99.5
ORP (mvol	lts:)	Instrument and Number:	YSI	_		Reading:	219.5
Turbidity (NTU):	Instrument and Number:	Lamotte			Reading:	1.2 / 128.4
Calibration	<u>n:</u>						
Specific Co	onductance:	Instrument and Number:	YSI	Standard Solution:	1000	Reading:	1000
pH (s.u.):		Instrument and Number:	YSI	Standard Solution:	4/7/10	Reading:	4.00 / 7.00 / 10.02
DO (%):		Instrument and Number:	YSI	Standard Solution:	100%	Reading:	99.9
ORP (mvol	lts:)	Instrument and Number:	YSI	Standard Solution:	237.5	Reading:	237.50

Standard Solution:

0/126

Lamotte

0.0 / 126.0

Reading:

Turbidity (NTU):

File No.	33554.01	L		<u></u>	P	age:	3 of 3
Project:	642 Allens	Avenue			Γ	Date:	3/21/2018
Location:	City: Provid	lence State: RI					
LOW FLOW	CALIBRATIC	<u>DN:</u> YSI 6820 - SN 09	8B1377AB				
Intial Readi	ng:						
Specific Con	nductance:	Instrument and Number:	YSI			Reading:	976
pH (s.u.):		Instrument and Number:	YSI	_		Reading:	4.02 / 6.95 / 9.93
DO (%):		Instrument and Number:	YSI	_		Reading:	98.8
ORP (mvolt	:s:)	Instrument and Number:	YSI	_		Reading:	239.0
Turbidity (N	NTU):	Instrument and Number:	Lamotte	-		Reading:	0.2 / 123.1
Calibration:	<u>:</u>						
Specific Con	nductance:	Instrument and Number:	YSI	Standard Solution:	1000	Reading:	1000
pH (s.u.):		Instrument and Number:	YSI	Standard Solution:	4/7/10	Reading:	4.00 / 7.00 / 10.00
DO (%):		Instrument and Number:	YSI	Standard Solution:	100%	Reading:	100
ORP (mvolt	:s:)	Instrument and Number:	YSI	Standard Solution:	237.5	Reading:	239.5

Standard Solution:

0/126

Lamotte

0.0 / 126.0

Reading:

Turbidity (NTU):



APPENDIX C

Investigation Derived Waste (IDW) Shipping Records

	`* RI 180	01329071-001	SC PPW	10/10/	2017	uckt	462113	4	E0 0030
nea 1	uniform HAZARDOUS WASTE MANIFEST R I D O O 7 9 1 8 7 7 4		. Emergency Respons (800) 483-3	e Phone	4. Manifest	Tacking N	1 Approved. 01 0662	4 FI	
	5. Generator's Name and Mailing Address Natragansett Electric Company 40 Sylvan Road Waltham. MA 02451 Generator's Phone: (781) 907-3647 ATTN:Susan Brochu	•	enerator's Site Address 642 Allens Av Providence,R	enue		·		<u> </u>	
	6. Transporter 1 Company Name Clean Harbors Environmental Services, Inc.				U.S. EPA ID		3222	5 O	
	7. Transporter 2 Company Name			- ***	U.S. EPA ID	Number			
	8. Designated Facility Name and Site Address Clean Harbors Environmental Services, Inc. 2900 Rockefeller Avenue Cleveland. OH 44115 Facility's Phone: (216) 429-2402								
	9a. HM 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID No and Packing Group (if any))	lumber,	10. Conta	iners Type	11. Total Quantity	12. Unit Wt./Vol.	13. Wa	ste Codes	
	1. NON DOT REGULATED MATERIAL. (PURGEWAT	ER)	NQ.	туре	Gooding	1	R015		
GENERATOR			001	DM	40	G			
ENE	2.			<u> </u>	_				
9									
	3.								
	4.								
		,		:			An Indiana di Gra		
	14. Special lengting in the cities and Additional Information								
	15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the content marked and labeled/placarded, and are in all respects in proper condition for transp Exporter, I certify that the contents of this consignment conform to the terms of the I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I are Generator's/Offeror's Printed/Typed Name	port according to applicat attached EPA Acknowled m a large quantity genera	ile international and na gment of Consent. tor) or (b) (it I am a sm	tional governm	nental regulations	hipping name s. If export sh	e, and are classif hipment and I am Month	fied, packag the Priman	ed, / Year
\downarrow	-IN LAMOLI NAMACANSET ELEC	MIC -		wa s	For 1	NEC	103	23	1/8
NT	16. International Shipments Import to U.S. Transporter signature (for exports only):	Export from U.S	S. Port of e	ntry/exit:				<u>-</u>	
		S:		<u> </u>			Month	Day	Year
PORI	Greg Lunn	Signar	-rea O	Zun	n		103	3/3	1/2
TRANSPORTER	Transporter 2 Printed/Typed Name	Signa I	ture /			-	Month I	Day	Year
<u>巨</u>	18. Discrepancy						·		Щ
	18a. Discrepancy Indication Space Quantity	/pe	Residue	North	Partial Re	ejection		Full Reject	tion
_	18b. Alternate Facility (or Generator)	<u>-</u>	Manifest Reference	æ Number:	U.S. EPA ID	Number			
FACIL	Facility's Phone:				1				
DESIGNATED FACILITY	18c. Signature of Alternate Facility (or Generator)						Monti	n Day	Year
JESIC	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous was	iste treatment, disposal, a	nd recycling systems)		4.				
_ 									
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials Printed/Typed Name	s covered by the manifes Signa		em 18a	TETE		Month	Day	Year

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#621134

DESIGNATED PACILITY TO DESTINATION STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter. RI 1801329071-001 SC PPW 10/10/2017 Form Approved. OMB No. 2050-0039 UNIFORM HAZARDOUS 1. Generator ID Number 4. Manifest Tracking Number 010906625 FLE 2. Page 1 of 3. Emergency Response Phone RID007918774 **WASTE MANIFEST** (800) 483-3718 enerator's Name and nerator's Site Address (if different than mailing address) Narragansett Electric Company 40 Sylvan Road **642** Allens Avenue Waltham, MA 02451 Providence,RI 02905 Generator's Phone: (781) 907-3647 6. Transporter 1 Company Name ATTN:Susan Brochu U.S. EPA ID Number Clean Harbors Environmental Services, Inc. MAD039322250 7. Transporter 2 Company Name U.S. EPA ID Number 8. Designated Facility Name and Site Address U.S. FPAID Number Clean Harbors El Dorado LLC ARD069748192 309 American Circle El Dorado. AR 71730 (870) 863-7173 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, 9а. НМ 10. Containers 11. Total 12. Unit 13. Waste Codes and Packing Group (if any)) Quantity Wt./Vol No. Туре NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (BENZENE), 9, D018 GENERATOR 001 X PG III DM 45 14. Special Handling Instructions and Additional Informat
1.U57365RI ERG#171 1 x 52 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 integnational and national governmental regulations. If export shipment and I am the Primar content certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or s/Offeror's Printed Typed Name 400 FR 262.27(a) (if I am a large quantity generator) waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or s/Offeror's Printed Typed Name 400 FR 262.27(a) (if I am a large quantity generator) was the content of or (b) (if am a small quanth generator) is true Acent 41215 FOR TNEC 031231 16. International Shipments Import to U.S. Port of Intry/exit: Export from U.S. Transporter signature (for exports only): ying U.S. Date le TRANSPORTER 17. Transporter Acknowledgment of Receipt of Materials ransporter 1 Printed/Typed Name Month Lunn 1186 03 Month Transporter 2 Printed/Typed Name 18. Discrepancy 18a. Discrepancy Indication Space Quantity Туре Full Rejection Residue Partial Rejection Manifest Reference Number: 18b. Alternate Facility (or Generator) U.S. EPA ID Number DESIGNATED FACILITY 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) H040 20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest experies noted in Item 18a Day

rm 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.



Land Disposal Restriction Notification Form

Page : 1 of 1

Printed Date: Mar 22, 2018

MANIFEST II	NFORMATION		********************	*********		======================================		
Genera	ator: Narragans	ett Electric Compa	any	r	Manifest Trooking			
Addr	ess: 642 Allens		•	Manifest Tracking Info. 010906625FLE				
EPA II	D#: RID007 NFORMATION	918774		Sales Order No: 1801329071-001				
Line Item:	Page No:	Profile No:	Treatability Group		LDR Disposal Category			
1.	. 4			TER	2 (This is subject to LDF			
EPA Waste C	ode	·		EPA Waste SubCategory				
				NONE				
			rtification			Applies to Manifest Line Items		
Pursuant to 40 Part 268.	CFR 268.7(a), I I	nereby notify that t	his shipment contains	waste res	stricted under 40 CFR	1.		
Waste analysis Signature : Title :	adata, where ava	Pable, is attached.	Print Name		-1m Friend 3-23-18			

Truck# 80178

		141 2000	3885176-0	01	SUPPW	7/12/2			Approved. O		50-0039
se print or type. UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number RID 0 0 7 9 :	18774	1	(80	ency Response 0) 483-3	718			9628	F	LE
5. Generator's Name and Name a	d 2451 1907-3647 A	TTN:Susan Brochu		642	s Site Address (Allens Av ridence,R	enue	n mailing addres				
6. Transporter 1 Company N Clean Harbors	Environmental Se	rvices, Inc.						0039	3222	50	<u>-</u>
7. Transporter 2 Company N 8. Designated Facility Name Clean Harbors 309 American El Dorado. AR	and Site Address EI Dorado LLC Circle 71730						U.S. EPAID I		7481	92	
Facility's Phone:	(870) 863-717: ription (including Proper Shippi	3 ing Name, Hazard Class, ID Nun	nber,		10. Contai	ners Type	11. Total Quantity	12. Unit Wt./Vol.	13. W	aste Codes	
and Packing Group 1. NON DOT		RIAL, (PURGEWATI	ER, OIL)	-	2	DM	75	(P)	R015		
2. HON DOT	REGULATED MATE	RIAL, (OILY DEBRI	5)		+	D M			4015		
3.											
4.											
15. GENERATOR'S/OFF marked and labeled/r Exporter, I certify that I certify that the waste Generator's/offeror's Print	by generator confers a EROR'S CERTIFICATION: It is contained and are in all response to minimization statement identifications. The confers of this consignment identification is contained by the contained of th	nereby declare that the contents to in proper condition for transpent conform to the terms of the a diffied in 40 CFR 262.27(a) (if I and SECUT FOR	of this consignment ort according to appartached EPA Acknoton a large quantity g	nt are fully a plicable inte pwledgmen enerator o Signatute	and accurately of emational and national and	described abovernational governational governational grantity gran	e by the proper nental regulation	snipping nan	shipment and I	am the Prim	Year
Transporter signature (for 17, Transporter Acknowled	exports only): gment of Receipt of Materials				Date lea	aving U.S.:			Moi	nth Day	Year
17. Transporter Acknowled Transporter 1 Printed/Type Transporter 2 Printed/Type	Malgi	279		Signature	wit-	- /	ela	ms	_	310	16
<u>™</u>				Signature				<u> </u>			
18. Discrepancy 18a. Discrepancy Indication	on Space Quantity	Ту			Residue	nce Number:		Rejection		Full Re	ejection
18. Discrepancy Indication 18a. Discrepancy Indication 18b. Alternate Facility (or Facility's Phone:	Generator)	Ту				nce Number:	Partial U.S. EPA				ejection
18. Discrepancy Indication 18a. Discrepancy Indication 18b. Alternate Facility (or Facility's Phone:	Generator) The Facility (or Generator)	Ty	r/pe		Manifest Refere		U.S. EPAI		N		
18. Discrepancy Indicated 18a. Discrepancy Indicated 18b. Alternate Facility (or Facility's Phone: 18c. Signature of Alternat 19. Hazardous Waste Re 1. H040	Generator) te Facility (or Generator) port Management Method Cox		rpe aste treatment, disp	posal, and r	Manifest Referen	is)			N		

\bigcap	UNIFORM HAZARDOUS WASTE MANIFEST RID 0 0 7 9 1 8 7 7 4	2. Page 1 of 1	3. Emergency Res (800) 48		4. Manifest	250	9710) F	LE
	5. Great Share and Methodologic Company 40 Sylvan Road	(Generator's Site Add	,	han mailing addre	ess)	•		
	Waltham, MA 02451 Generator's Phone: (781) 907-3647 ATTN:Susan Brochu	1	642 Allen: Providenc	s Avenue :e.Rl 0290	5				
	6. Transporter 1 Company Name Clean Harbors Environmental Services, Inc.	•			U.S. EPA ID		3222	50	
	7. Transporter 2 Company Name				U.S. EPA ID	Number			
	8. Designated Facility Name and Site Address Clean Harbors El Dorado LLC				U.S. EPA ID	Number			
	309 American Circle El Dorado, AR 71730 Facility's Phone: (870) 863-7173				ARI	0069	7481	92	
	9a. 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	11. Total Quantity	12. Unit Wt./Vol.	13. W	aste Codes	5			
<u> </u>	1. NON DOT DEGILIATED MATERIAL (DUDGEWATED	Type	 		R015				
GENERATOR			12	Dn	کک	10			
GENE	2.								
	3.					<u> </u>			
Ц	J.								
$\ $	4.					 		-	
									····
	14. Special Handling Instructions and Additional Information 1. T26781WAPLRT			 	<u> </u>	L:	<u> </u>	1	
	Contract retained by generator confers agency authority on initial tra	s consignment ar	e fully and accurate	ly described above	e by the proper s	hipping name	e, and are class	ified, packa	iged,
	marked and labeled/placarded, and are in all respects in proper condition for transport acc Exporter, I certify that the contents of this consignment conform to the terms of the attache I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large	ed EPA Acknowle	dgment of Consent.		,	i. If export sh	ipment and I ar	n the Prima	ary
	Generator's/Offeror's Psinted/Typed Name	Sign		s syrian quantity g	enerajor) is true.	111	Month	n Day	Year
<u>+</u> ب	16. Infernational Shipments Import to U.S.]	PA P	of entrylexit	my	Jak	May 7	6	18
N IN	Transporter signature (for exports only):			leaving U.S.;		<i>U</i>			
ORTE	Transporter 1 Printed/Typed Name	Signa	atule /	1n			Month	Day	Year
TRANSPORTER	Transporter 2 Printed/Typed Name	Signa	ure	110	non		Month	Day	Year
¥ R	18. Discrepancy				- - - ··			_1	<u> </u>
	18a. Discrepancy Indication Space Quantity Type		Residue		Partial Re	jection		Full Rejec	ction
			Manifest Refe	rence Number:					
	18b. Alternate Facility (or Generator)				U.S. EPA ID I	Number			
D FA	Facility's Phone: 18c. Signature of Alternate Facility (or Generator)				1		Mont	h P-:-	V
DESIGNATED FACILITY							Mont	h Day	Year
DESIG	Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treat 1. 2.	tment, disposal,	and recycling system	ns)	4.				
	H040	ad by the reset	at avant as = -11	10- 10-					_
	20. Designated Facility Owner or Operator Certification of receipt of hazardous materials covered Printed/Typed Name	Signa		i ilem 18a	61.		Month	Day	Year
<u></u> EPA	A Form 8700-22 (Rev. 12-17) Previous editions are obsolete.			ESIGNATE	D FACILITY	J TO EBA	10	[<u> </u>	<u> / </u>

Truck # 621134

RI 1805#36201-001 SC PPW 7/12/2018 Please print or type. Form Approved, OMB No. 2050-0039 1. Generator ID Number 2. Page 1 of 3. Emergency Response Phone 4. Manifest Tracking Number UNIFORM HAZARDOUS 012509825 **WASTE MANIFEST** RID007918774 (800) 483-3718 5. Generator's Name and Mailing Address Generator's Site Address (if different than mailing address) Narragansett Electric Company 40 Sylvan Road 642 Aliens Avenue Waitham, MA 02451 Providence,RI 02905 Generator's Phone: (781) 907-3647 ATTN:Susan Brochu 6. Transporter 1 Company Name U.S. FPA ID Number Clean Harbors Environmental Services, Inc. MAD039322250 7. Transporter 2 Company Name U.S. EPA ID Number 8. Designated Facility Name and Site Address U.S. EPA ID Number Clean Harbors El Dorado LLC 309 American Circle ARD069748192 El Dorado, AR 71730 Facility's Phone (870) 863-7173 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number 10. Containers 11. Total 12 Unit and Packing Group (if any)) 13. Waste Codes НМ Wt./Vol. No. Quantity Type NON DOT REGULATED MATERIAL, (PURGEWATER | DIL) R015 GENERATOR [)M IJ. 14. Special Handling Instructions and Additional Information 1.T26781NAPLRI 1×55 GENERATOR'S CERTIFICATION: Thereby 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 accurrding 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. certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if am a small qua or's Printed/Typed Na 12/5 AGENT FOR Year NARRAGANSETT ELECTRIC 16. International Shipments Import to U.S. Export from U.S ort of entry/ex Transporter signature (for exports only) leaving U 17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Signature Month Year Transporter 2 Printed/Typed Name Signature Month 18. Discrepancy 18a. Discrepancy Indication Space Type Quantity Residue _ Full Rejection Manifest Reference Number: 18b. Alternate Facility (or Generator) U.S. EPA ID Number Facility's Phone: DESIGNATED 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) 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 Day EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIF

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

RI 1803625970-005

SC PPW 7/12/2018

Truck#621134
Form Approved. OMB No. 2050-0039

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Waitham, MA 0	7451 1907 2647	ATTN:Susan i	Dracku	ı F	rovidence,	RI 02905					
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Clean Harbors	Environment	al Services, Inc.					I MAI	0039	322	250	
7. Transporter 2 Company Na	me						U.S. EPA ID				
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El Dorado, AR 7	1730						1				
Facility's Phone:	<u>(870) 863-</u>		N 15 N		1 40.0	1		T	1	_	
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VEG2039522550

TPD

Shah hisho Quenting Hills.



Land Disposal Restriction Notification Form

Page: 1 of 1

Printed Date: Dec 07, 2018

MANIFEST INFORMATION Manifest Tracking Info. Generator: Narragansett Electric Company 642 Allens Avenue 012509946FLE Address: Providence,RI 02905 EPAID#: RID007918774 Sales Order No: 1803625970-005 LINE ITEM INFORMATION Treatability Group: LDR Disposal Category Line Item: Page No: Profile No: U57365RI NON-WASTEWATER 2 (This is subject to LDR.) EPA Waste SubCategory **EPA Waste Code** D018 NONE Applies to Certification Manifest Line <u>Items</u> Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268. Waste analysis data, where available, is attached. Signature: Print Name Title: Date:



APPENDIX D

Laboratory Reports



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Sophia Narkiewicz GZA GeoEnvironmental, Inc. 530 Broadway Providence, RI 02909

RE: 642 Allens Ave (03.0033554)

ESS Laboratory Work Order Number: 1803460

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 5:36 pm, Mar 28, 2018

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.



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

SAMPLE RECEIPT

The following samples were received on March 21, 2018 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1803460-01	GZA-201	Ground Water	8260B
1803460-02	GZA-301D	Ground Water	8260B
1803460-03	GZA-304D	Ground Water	8260B
1803460-04	GZA-309D	Ground Water	8260B
1803460-05	GZA-319D	Ground Water	8260B
1803460-06	RCA-1	Ground Water	8260B
1803460-07	RCA-12R	Ground Water	8260B
1803460-08	RCA-15	Ground Water	8260B
1803460-09	RCA-22	Ground Water	8260B
1803460-10	RCA-36	Ground Water	8260B
1803460-11	VHB-1	Ground Water	8260B
1803460-12	VHB-20	Ground Water	8260B
1803460-13	BD32118	Ground Water	8260B
1803460-14	Trip Blank	Aqueous	8260B
1803460-15	Trip Blank	Aqueous	8260B



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

PROJECT NARRATIVE

8260B Volatile Organic Compounds

C8C0361-CCV1 Continuing Calibration %Diff/Drift is above control limit (CD+).

Chloromethane (35% @ 30%)

CC82625-BS1 Blank Spike recovery is above upper control limit (B+).

Chloromethane (147% @ 70-130%)

CC82625-BSD1 Blank Spike recovery is above upper control limit (B+).

Chloromethane (141% @ 70-130%)

CC82625-BSD1 Blank Spike recovery is below lower control limit (B-).

trans-1,3-Dichloropropene (69% @ 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

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486

Service



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

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.

Dependability



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-201 Date Sampled: 03/20/18 16:00

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-01

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	03/23/18 17:57	C8C0336	CC82325
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,2,4-Trimethylbenzene	0.0017 (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)		8260B		1	03/23/18 17:57	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
2-Butanone	ND (0.0100)		8260B		1	03/23/18 17:57	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
2-Hexanone	ND (0.0100)		8260B		1	03/23/18 17:57	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Acetone	ND (0.0100)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Benzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Bromobenzene	ND (0.0020)		8260B		1	03/23/18 17:57	C8C0336	CC82325

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Quality

Dependability

Fax: 401-461-4486

http://www.ESSLaboratory.com



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-201 Date Sampled: 03/20/18 16:00

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-01

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	03/23/18 17:57	C8C0336	CC82325
Bromodichloromethane	ND (0.0006)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Bromoform	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Bromomethane	ND (0.0020)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Chlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Chloroethane	ND (0.0020)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Chloroform	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Chloromethane	ND (0.0020)		8260B		1	03/23/18 17:57	C8C0336	CC82325
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Dibromomethane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Diethyl Ether	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Ethylbenzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Hexachloroethane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Isopropylbenzene	0.0073 (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Methylene Chloride	ND (0.0020)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Naphthalene	0.0084 (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
n-Butylbenzene	0.0034 (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
n-Propylbenzene	0.0043 (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
sec-Butylbenzene	0.0041 (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Styrene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486

http://www.ESSLaboratory.com



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-201 Date Sampled: 03/20/18 16:00

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-01

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

<u>Analyte</u>	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Xylene O	0.0014 (0.0010)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 17:57	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 17:57		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		102 %		70-130				
Surrogate: 4-Bromofluorobenzene		89 %		70-130				
Surrogate: Dibromofluoromethane		95 %		70-130				
Surrogate: Toluene-d8		101 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-301D Date Sampled: 03/21/18 12:45

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-02

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte 1,1,1,2-Tetrachloroethane	Results (MRL) ND (0.0010)	<u>MDL</u>	Method 8260B	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u> 03/23/18 14:33	Sequence C8C0336	Batch CC82325
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0015)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)		8260B		1	03/23/18 14:33	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
2-Butanone	ND (0.0100)		8260B		1	03/23/18 14:33	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
2-Hexanone	ND (0.0100)		8260B		1	03/23/18 14:33	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Acetone	ND (0.0100)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Benzene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Bromobenzene	ND (0.0020)		8260B		1	03/23/18 14:33	C8C0336	CC82325

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Dependability

Fax: 401-461-4486

http://www.ESSLaboratory.com



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-301D Date Sampled: 03/21/18 12:45

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-02

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL Metl	<u>iod</u> <u>Limit</u>	DF	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)	8260		1	03/23/18 14:33	C8C0336	CC82325
Bromodichloromethane	ND (0.0006)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Bromoform	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Bromomethane	ND (0.0020)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Chlorobenzene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Chloroethane	ND (0.0020)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Chloroform	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Chloromethane	ND (0.0020)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
cis-1,2-Dichloroethene	0.0012 (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Dibromomethane	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Diethyl Ether	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Ethylbenzene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Hexachloroethane	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Isopropylbenzene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Methylene Chloride	ND (0.0020)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Naphthalene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
n-Butylbenzene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
n-Propylbenzene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
sec-Butylbenzene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Styrene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)	8260	В	1	03/23/18 14:33	C8C0336	CC82325



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-301D Date Sampled: 03/21/18 12:45

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-02

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

<u>Analyte</u>	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Vinyl Chloride	0.0014 (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Xylene O	ND (0.0010)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 14:33	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 14:33		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		103 %		70-130				
Surrogate: 4-Bromofluorobenzene		87 %		70-130				
Surrogate: Dibromofluoromethane		99 %		70-130				
Surrogate: Toluene-d8		102 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-304D Date Sampled: 03/21/18 11:38

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-03

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte 1,1,1,2-Tetrachloroethane	Results (MRL) ND (0.0010)	<u>MDL</u>	Method 8260B	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u> 03/23/18 14:59	Sequence C8C0336	Batch CC82325
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)		8260B		1	03/23/18 14:59	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
2-Butanone	ND (0.0100)		8260B		1	03/23/18 14:59	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
2-Hexanone	ND (0.0100)		8260B		1	03/23/18 14:59	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Acetone	ND (0.0100)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Benzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Bromobenzene	ND (0.0020)		8260B		1	03/23/18 14:59	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-304D Date Sampled: 03/21/18 11:38

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-03

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Bromodichloromethane	ND (0.0006)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Bromoform	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Bromomethane	ND (0.0020)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Chlorobenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Chloroethane	ND (0.0020)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Chloroform	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Chloromethane	ND (0.0020)		8260B		1	03/23/18 14:59	C8C0336	CC82325
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Dibromomethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Diethyl Ether	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Ethylbenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Hexachloroethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Isopropylbenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Methylene Chloride	ND (0.0020)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Naphthalene	0.0023 (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
n-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
n-Propylbenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
sec-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Styrene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-304D Date Sampled: 03/21/18 11:38

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-03

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

<u>Analyte</u>	Results (MRL)	MDL	Method	<u>Limit</u>	DF	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Xylene O	ND (0.0010)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 14:59	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 14:59		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		103 %		70-130				
Surrogate: 4-Bromofluorobenzene		88 %		70-130				
Surrogate: Dibromofluoromethane		98 %		70-130				
Surrogate: Toluene-d8		103 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-309D Date Sampled: 03/21/18 11:18

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-04

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte 1,1,1,2-Tetrachloroethane	Results (MRL)	<u>MDL</u> <u>Me</u> 826	hod Limit	<u>DF</u>	Analyzed 03/23/18 15:24	Sequence C8C0336	Batch CC82325
, , ,	ND (0.0010)			_			
1,1,1-Trichloroethane	ND (0.0010)	826		1	03/23/18 15:24	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)	826		1	03/23/18 15:24	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)	826		1	03/23/18 15:24	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)	826		1	03/23/18 15:24	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)	826		1	03/23/18 15:24	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)	826		1	03/23/18 15:24	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,2,4-Trimethylbenzene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)	826)B	1	03/23/18 15:24	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
2-Butanone	ND (0.0100)	826)B	1	03/23/18 15:24	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
2-Hexanone	ND (0.0100)	826)B	1	03/23/18 15:24	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)	826)B	1	03/23/18 15:24	C8C0336	CC82325
Acetone	ND (0.0100)	826)B	1	03/23/18 15:24	C8C0336	CC82325
Benzene	ND (0.0010)	826)B	1	03/23/18 15:24	C8C0336	CC82325
Bromobenzene	ND (0.0020)	826)B	1	03/23/18 15:24	C8C0336	CC82325
	1.2 (0.0020)						

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-309D Date Sampled: 03/21/18 11:18

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-04

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Bromodichloromethane ND (0.0006) \$260B 1 03/23/18 15:24 C8C036 CC82325 Bromoform ND (0.0010) \$260B 1 03/23/18 15:24 C8C036 CC82325 Bromomethane ND (0.0010) \$260B 1 03/23/18 15:24 C8C036 CC82325 Carbon Tistachloride ND (0.0010) \$260B 1 03/23/18 15:24 C8C036 CC82325 Carbon Tetrachloride ND (0.0010) \$260B 1 03/23/18 15:24 C8C036 CC82325 Chlorostenzene ND (0.0010) \$260B 1 03/23/18 15:24 C8C036 CC82325 Chlorosteltane ND (0.0010) \$260B 1 03/23/18 15:24 C8C036 CC82325 Chlorosteltane ND (0.0010) \$260B 1 03/23/18 15:24 C8C036 CC82325 Chlorosteltane ND (0.0010) \$260B 1 03/23/18 15:24 C8C036 CC82325 Chlorosteltane ND (0.0010) \$260B 1 03/23/18 15:24 C8C036 CC82325	Analyte Bromochloromethane	Results (MRL) ND (0.0010)	MDL Method 8260B	<u>Limit</u> <u>DI</u>		Sequence C8C0336	Batch CC82325
Bromoform ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Bromomethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Carbon Disulfide ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chlorochance ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chlorochance ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chlorochanc ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chlorochane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chlorochane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chlorochane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chlorochane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dibromo	Bromodichloromethane	, í	8260B	1	03/23/18 15:24	C8C0336	CC82325
Bromomethane ND (0.0020) 8260B 1 0.323/18 15.24 C8C0336 CC82325 Carbon Disulfide ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 Carbon Etrachloride ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 Chlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 Chlorocharce ND (0.0020) 8260B 1 0.323/18 15.24 C8C0336 CC82325 Chlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 Chlorocharce ND (0.0020) 8260B 1 0.323/18 15.24 C8C0336 CC82325 Chlorocharce ND (0.0020) 8260B 1 0.323/18 15.24 C8C0336 CC82325 Chlorocharce ND (0.0020) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,2-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dichlorocharce ND (0.0010) 8260B 1 0.323/18 15.24 C8C0336 CC82325 C6:-1,3-Dic	Bromoform	, ,	8260B	1	03/23/18 15:24	C8C0336	
Carbon Disulfide ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336 CC82325 Carbon Tetrachloride ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336 CC82325 Chlorochance ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336 CC82325 Chlorochance ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336 CC82325 Chloromethane ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336 CC82325 Chloromethane ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336 CC82325 Cis-1,2-Dichlorochene ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336 CC82325 Dibromochloromethane ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336 CC82325 Dibromochloromethane ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336 CC82325 Dibromochloromethane ND (0.0010) 8260B 1 03/23/18 15:24 CSC0336	Bromomethane	, ,	8260B	1	03/23/18 15:24	C8C0336	CC82325
Chlorobenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chloroethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chloroethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chloromethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chloromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichloroethene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CC82	Carbon Disulfide	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Chloroethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chloroform ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chloromethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichloroethene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichloropropene ND (0.0004) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichloropropene ND (0.0004) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichloromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichloromethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Cis-1,3-Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIs-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIs-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIs-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIs-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIs-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIs-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIs-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIs-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIS-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIS-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIS-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIS-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 CIS-1,3-Dichloropropene	Carbon Tetrachloride	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Chloroform ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Chloromethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 cis-1,2-Dichloroethene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 cis-1,3-Dichloropropene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dibromomethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dibromomethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0	Chlorobenzene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Chloromethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 cis-1,2-Dichloroethene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 cis-1,3-Dichloropropene ND (0.0004) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dibromochloromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dibromochlane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0000) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethylene Chloride ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Nethylbenzene ND (0.0010) 8260B 1 03/23	Chloroethane	ND (0.0020)	8260B	1	03/23/18 15:24	C8C0336	CC82325
cis-1,2-Dichloroethene ND (0.0010) 8260B 1 03/23/18 15:24 CR0336 CC82325 cis-1,3-Dichloropropene ND (0.0004) 8260B 1 03/23/18 15:24 CR0336 CC82325 Dibromoethloromethane ND (0.0010) 8260B 1 03/23/18 15:24 CR0336 CC82325 Dibromomethane ND (0.0010) 8260B 1 03/23/18 15:24 CR0336 CC82325 Dichlorodifluoromethane ND (0.0020) 8260B 1 03/23/18 15:24 CR0336 CC82325 Dichlyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 CR0336 CC82325 Di-isopropyl ether ND (0.0010) 8260B 1 03/23/18 15:24 CR00336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 CR00336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 CR00336 CC82325 Ethyl tertiary-butyl ether ND (0.0000) 8260B 1 03/23/18 15:24 <td>Chloroform</td> <td>ND (0.0010)</td> <td>8260B</td> <td>1</td> <td>03/23/18 15:24</td> <td>C8C0336</td> <td>CC82325</td>	Chloroform	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Second Commentation Second Commentation	Chloromethane	ND (0.0020)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Dibromochloromethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dibromomethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Dichlorodifluoromethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Diethyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachlorobutadiene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachlorobutadiene ND (0.0010) 8260B 1 03/23/18 15:24	cis-1,2-Dichloroethene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Dibromomethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	cis-1,3-Dichloropropene	ND (0.0004)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Dichlorodifluoromethane ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Diethyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Di-isopropyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachlorobutadiene ND (0.0006) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachloroethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Isopropylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336<	Dibromochloromethane	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Diethyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Di-isopropyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachlorobutadiene ND (0.0006) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachloroethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Isopropylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336	Dibromomethane	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Di-isopropyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethylbenzene ND (0.0006) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachlorobutadiene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Isopropylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Isopropylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	Dichlorodifluoromethane	ND (0.0020)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Ethyl tertiary-butyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Ethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachlorobutadiene ND (0.0006) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachloroethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Isopropylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336	Diethyl Ether	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Ethylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachlorobutadiene ND (0.0006) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachloroethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Isopropylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	Di-isopropyl ether	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Hexachlorobutadiene ND (0.0006) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Hexachloroethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Isopropylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 <td>Ethyl tertiary-butyl ether</td> <td>ND (0.0010)</td> <td>8260B</td> <td>1</td> <td>03/23/18 15:24</td> <td>C8C0336</td> <td>CC82325</td>	Ethyl tertiary-butyl ether	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Hexachloroethane ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Isopropylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82	Ethylbenzene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Isopropylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82	Hexachlorobutadiene	ND (0.0006)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Methyl tert-Butyl Ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	Hexachloroethane	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Methylene Chloride ND (0.0020) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	Isopropylbenzene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Naphthalene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	Methyl tert-Butyl Ether	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
n-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	Methylene Chloride	ND (0.0020)	8260B	1	03/23/18 15:24	C8C0336	CC82325
n-Propylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	Naphthalene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
sec-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	n-Butylbenzene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Styrene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	n-Propylbenzene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
tert-Butylbenzene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325 Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	sec-Butylbenzene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Tertiary-amyl methyl ether ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	Styrene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
, and the control of	tert-Butylbenzene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
Tetrachloroethene ND (0.0010) 8260B 1 03/23/18 15:24 C8C0336 CC82325	Tertiary-amyl methyl ether	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325
	Tetrachloroethene	ND (0.0010)	8260B	1	03/23/18 15:24	C8C0336	CC82325

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-309D Date Sampled: 03/21/18 11:18

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-04

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

Analyte	Results (MRL)	MDL	Method	Limit	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 15:24	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 15:24	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 15:24	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 15:24	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 15:24	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 15:24	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 15:24	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 15:24	C8C0336	CC82325
Xylene O	ND (0.0010)		8260B		1	03/23/18 15:24	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 15:24	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 15:24		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		104 %		70-130				
Surrogate: 4-Bromofluorobenzene		89 %		70-130				
Surrogate: Dibromofluoromethane		97 %		70-130				
Surrogate: Toluene-d8		102 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-319D Date Sampled: 03/21/18 09:27

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-05

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte 1,1,1,2-Tetrachloroethane	Results (MRL) ND (0.0010)	MDL	Method 8260B	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u> 03/23/18 18:23	Sequence C8C0336	Batch CC82325
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)		8260B		1	03/23/18 18:23	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
2-Butanone	ND (0.0100)		8260B		1	03/23/18 18:23	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
2-Hexanone	ND (0.0100)		8260B		1	03/23/18 18:23	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Acetone	ND (0.0100)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Benzene	0.0056 (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Bromobenzene	ND (0.0020)		8260B		1	03/23/18 18:23	C8C0336	CC82325

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Dependability

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-319D Date Sampled: 03/21/18 09:27

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-05

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	03/23/18 18:23	C8C0336	CC82325
Bromodichloromethane	ND (0.0006)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Bromoform	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Bromomethane	ND (0.0020)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Chlorobenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Chloroethane	ND (0.0020)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Chloroform	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Chloromethane	ND (0.0020)		8260B		1	03/23/18 18:23	C8C0336	CC82325
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Dibromomethane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Diethyl Ether	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Ethylbenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Hexachloroethane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Isopropylbenzene	0.0017 (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Methylene Chloride	ND (0.0020)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Naphthalene	0.0013 (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
n-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
n-Propylbenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
sec-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Styrene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: GZA-319D Date Sampled: 03/21/18 09:27

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-05

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

<u>Analyte</u>	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Xylene O	ND (0.0010)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 18:23	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 18:23		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		98 %		70-130				
Surrogate: 4-Bromofluorobenzene		87 %		70-130				
Surrogate: Dibromofluoromethane		93 %		70-130				
Surrogate: Toluene-d8		97 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave

Client Sample ID: RCA-1 Date Sampled: 03/21/18 12:06

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-06

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL M	<u> 1ethod</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)		3260B		1	03/23/18 17:32	C8C0336	CC82325
1,1,1-Trichloroethane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,2,4-Trimethylbenzene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
2-Butanone	ND (0.0100)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
2-Hexanone	ND (0.0100)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
Acetone	ND (0.0100)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
Benzene	0.0028 (0.0010)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325
Bromobenzene	ND (0.0020)	8	3260B		1	03/23/18 17:32	C8C0336	CC82325

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Quality

Dependability

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave

Client Sample ID: RCA-1 Date Sampled: 03/21/18 12:06

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-06

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte Bromochloromethane	Results (MRL) ND (0.0010)	<u>MDL</u>	Method 8260B	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u> 03/23/18 17:32	Sequence C8C0336	Batch CC82325
Bromodichloromethane	ND (0.0006)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Bromoform	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Bromomethane	ND (0.0020)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Chlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Chloroethane	ND (0.0020)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Chloroform	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Chloromethane	ND (0.0020)		8260B		1	03/23/18 17:32	C8C0336	CC82325
cis-1,2-Dichloroethene	0.0010 (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Dibromomethane	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Diethyl Ether	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Ethylbenzene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Hexachloroethane	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Isopropylbenzene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Methylene Chloride	ND (0.0020)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Naphthalene	0.0141 (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
n-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
n-Propylbenzene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
sec-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Styrene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave

Client Sample ID: RCA-1

Date Sampled: 03/21/18 12:06 Percent Solids: N/A

Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-06

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

<u>Analyte</u>	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Vinyl Chloride	0.0028 (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Xylene O	ND (0.0010)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 17:32	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 17:32		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		101 %		70-130				
Surrogate: 4-Bromofluorobenzene		87 %		70-130				
Surrogate: Dibromofluoromethane		96 %		70-130				
Surrogate: Toluene-d8		97 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-12R Date Sampled: 03/21/18 13:08

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-07

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte 1,1,1,2-Tetrachloroethane	Results (MRL) ND (0.0010)	MDL Methor 8260B		nalyzed /18 15:50	Sequence C8C0336	Batch CC82325
1,1,1-Trichloroethane	ND (0.0010)	8260B		/18 15:50	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,2,4-Trimethylbenzene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
2-Butanone	ND (0.0100)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
2-Hexanone	ND (0.0100)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
Acetone	ND (0.0100)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
Benzene	ND (0.0010)	8260B	1 03/23	/18 15:50	C8C0336	CC82325
Bromobenzene	ND (0.0020)	8260B	1 03/23	/18 15:50	C8C0336	CC82325

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CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-12R Date Sampled: 03/21/18 13:08

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-07

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	<u>DF</u>	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Bromodichloromethane	ND (0.0006)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Bromoform	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Bromomethane	ND (0.0020)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Chlorobenzene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Chloroethane	ND (0.0020)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Chloroform	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Chloromethane	ND (0.0020)		8260B		1	03/23/18 15:50	C8C0336	CC82325
cis-1,2-Dichloroethene	0.0024 (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Dibromomethane	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Diethyl Ether	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Ethylbenzene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Hexachloroethane	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Isopropylbenzene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Methylene Chloride	ND (0.0020)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Naphthalene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
n-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
n-Propylbenzene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
sec-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Styrene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-12R Date Sampled: 03/21/18 13:08

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-07

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

<u>Analyte</u>	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Trichloroethene	0.0026 (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Xylene O	ND (0.0010)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 15:50	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 15:50		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		104 %		70-130				
Surrogate: 4-Bromofluorobenzene		86 %		70-130				
Surrogate: Dibromofluoromethane		98 %		70-130				
Surrogate: Toluene-d8		104 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-15 Date Sampled: 03/21/18 09:55

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-08

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte 1,1,1,2-Tetrachloroethane	Results (MRL) ND (0.0010)	MDL	Method 8260B	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u> 03/23/18 16:15	Sequence C8C0336	Batch CC82325
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)		8260B		1	03/23/18 16:15	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
2-Butanone	ND (0.0100)		8260B		1	03/23/18 16:15	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
2-Hexanone	ND (0.0100)		8260B		1	03/23/18 16:15	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Acetone	ND (0.0100)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Benzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Bromobenzene	ND (0.0020)		8260B		1	03/23/18 16:15	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-15 Date Sampled: 03/21/18 09:55

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-08

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	03/23/18 16:15	C8C0336	CC82325
Bromodichloromethane	ND (0.0006)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Bromoform	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Bromomethane	ND (0.0020)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Chlorobenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Chloroethane	ND (0.0020)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Chloroform	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Chloromethane	ND (0.0020)		8260B		1	03/23/18 16:15	C8C0336	CC82325
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Dibromomethane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Diethyl Ether	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Ethylbenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Hexachloroethane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Isopropylbenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Methylene Chloride	ND (0.0020)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Naphthalene	0.0024 (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
n-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
n-Propylbenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
sec-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Styrene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-15

Date Sampled: 03/21/18 09:55

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-08

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Xylene O	ND (0.0010)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 16:15	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 16:15		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		104 %		70-130				
Surrogate: 4-Bromofluorobenzene		88 %		70-130				
Surrogate: Dibromofluoromethane		98 %		70-130				
Surrogate: Toluene-d8		101 %		70-130				

Service



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-22

Date Sampled: 03/21/18 08:55

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-09

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL Method	<u>Limit</u> <u>DF</u>	<u>Analyzed</u>	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,1,1-Trichloroethane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,2,4-Trimethylbenzene	0.0059 (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)	8260B	1	03/23/18 18:49	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
2-Butanone	ND (0.0100)	8260B	1	03/23/18 18:49	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
2-Hexanone	ND (0.0100)	8260B	1	03/23/18 18:49	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)	8260B	1	03/23/18 18:49	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)	8260B	1	03/23/18 18:49	C8C0336	CC82325
Acetone	ND (0.0100)	8260B	1	03/23/18 18:49	C8C0336	CC82325
Benzene	1.08 (0.100)	8260B	100	03/26/18 14:26	C8C0336	CC82325
Bromobenzene	ND (0.0020)	8260B	1	03/23/18 18:49	C8C0336	CC82325

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CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-22

Date Sampled: 03/21/18 08:55

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-09

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	03/23/18 18:49	C8C0336	CC82325
Bromodichloromethane	ND (0.0006)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Bromoform	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Bromomethane	ND (0.0020)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Chlorobenzene	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Chloroethane	ND (0.0020)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Chloroform	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Chloromethane	ND (0.0020)		8260B		1	03/23/18 18:49	C8C0336	CC82325
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Dibromomethane	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Diethyl Ether	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Ethylbenzene	0.0458 (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Hexachloroethane	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Isopropylbenzene	0.0427 (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Methylene Chloride	ND (0.0020)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Naphthalene	0.418 (0.100)		8260B		100	03/26/18 14:26	C8C0336	CC82325
n-Butylbenzene	0.0044 (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
n-Propylbenzene	0.0129 (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
sec-Butylbenzene	0.0025 (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Styrene	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325

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Quality

Dependability

Fax: 401-461-4486



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave

Client Sample ID: RCA-22 Date Sampled: 03/21/18 08:55

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-09

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Toluene	0.0012 (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Xylene O	0.0160 (0.0010)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Xylene P,M	0.0034 (0.0020)		8260B		1	03/23/18 18:49	C8C0336	CC82325
Xylenes (Total)	0.0194 (0.0020)		8260B		1	03/23/18 18:49		[CALC]
	%	Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		97 %		70-130				
Surrogate: 4-Bromofluorobenzene		93 %		70-130				
Surrogate: Dibromofluoromethane		91 %		70-130				
Surrogate: Toluene-d8		100 %		70-130				

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-36 Date Sampled: 03/20/18 15:46

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-10

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte 1,1,1,2-Tetrachloroethane	Results (MRL) ND (0.0010)	MDL	Method 8260B	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u> 03/23/18 17:06	Sequence C8C0336	Batch CC82325
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,2,4-Trimethylbenzene	0.0054 (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)		8260B		1	03/23/18 17:06	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
2-Butanone	ND (0.0100)		8260B		1	03/23/18 17:06	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
2-Hexanone	ND (0.0100)		8260B		1	03/23/18 17:06	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Acetone	ND (0.0100)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Benzene	0.0359 (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Bromobenzene	ND (0.0020)		8260B		1	03/23/18 17:06	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-36 Date Sampled: 03/20/18 15:46

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-10

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	03/23/18 17:06	C8C0336	CC82325
Bromodichloromethane	ND (0.0006)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Bromoform	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Bromomethane	ND (0.0020)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Chlorobenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Chloroethane	ND (0.0020)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Chloroform	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Chloromethane	ND (0.0020)		8260B		1	03/23/18 17:06	C8C0336	CC82325
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Dibromomethane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Diethyl Ether	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Ethylbenzene	0.0046 (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Hexachloroethane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Isopropylbenzene	0.0022 (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Methylene Chloride	ND (0.0020)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Naphthalene	0.0042 (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
n-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
n-Propylbenzene	0.0014 (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
sec-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Styrene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325

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Quality

Dependability

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: RCA-36 Date Sampled: 03/20/18 15:46

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-10

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

<u>Analyte</u>	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Xylene O	0.0023 (0.0010)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 17:06	C8C0336	CC82325
Xylenes (Total)	0.0023 (0.0020)		8260B		1	03/23/18 17:06		[CALC]
	9/	6Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		106 %		70-130				
Surrogate: 4-Bromofluorobenzene		90 %		70-130				
Surrogate: Dibromofluoromethane		99 %		70-130				
Surrogate: Toluene-d8		101 %		70-130				

Dependability



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave

Client Sample ID: VHB-1 Date Sampled: 03/21/18 11:54

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-11

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	03/26/18 13:35	C8C0361	CC82625
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,1-Dichloroethane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,1-Dichloroethene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,1-Dichloropropene	ND (0.0020)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,2-Dibromoethane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,2-Dichloroethane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,2-Dichloropropane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,3-Dichloropropane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1,4-Dioxane - Screen	ND (0.500)		8260B		1	03/26/18 13:35	C8C0361	CC82625
1-Chlorohexane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
2,2-Dichloropropane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
2-Butanone	ND (0.0100)		8260B		1	03/26/18 13:35	C8C0361	CC82625
2-Chlorotoluene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
2-Hexanone	ND (0.0100)		8260B		1	03/26/18 13:35	C8C0361	CC82625
4-Chlorotoluene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
4-Isopropyltoluene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Acetone	ND (0.0100)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Benzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Bromobenzene	ND (0.0020)		8260B		1	03/26/18 13:35	C8C0361	CC82625

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave

Client Sample ID: VHB-1 Date Sampled: 03/21/18 11:54

Percent Solids: N/A
Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-11

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	03/26/18 13:35	C8C0361	CC82625
Bromodichloromethane	ND (0.0006)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Bromoform	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Bromomethane	ND (0.0020)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Carbon Disulfide	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Chlorobenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Chloroethane	ND (0.0020)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Chloroform	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Chloromethane	ND (0.0020)		8260B		1	03/26/18 13:35	C8C0361	CC82625
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Dibromochloromethane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Dibromomethane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Diethyl Ether	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Di-isopropyl ether	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Ethylbenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Hexachloroethane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Isopropylbenzene	0.0061 (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Methylene Chloride	ND (0.0020)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Naphthalene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
n-Butylbenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
n-Propylbenzene	0.0020 (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
sec-Butylbenzene	0.0021 (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Styrene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
tert-Butylbenzene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Tetrachloroethene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625

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◆ Service



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave

Client Sample ID: VHB-1 Date Sampled: 03/21/18 11:54

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-11

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

<u>Analyte</u>	Results (MRL)	MDL	Method	Limit	DF	<u>Analyzed</u>	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Toluene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Trichloroethene	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Vinyl Acetate	ND (0.0050)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Vinyl Chloride	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Xylene O	ND (0.0010)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Xylene P,M	ND (0.0020)		8260B		1	03/26/18 13:35	C8C0361	CC82625
Xylenes (Total)	ND (0.0020)		8260B		1	03/26/18 13:35		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		97 %		70-130				
Surrogate: 4-Bromofluorobenzene		85 %		70-130				
Surrogate: Dibromofluoromethane		90 %		70-130				
Surrogate: Toluene-d8		98 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: VHB-20 Date Sampled: 03/21/18 09:53

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-12

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

<u>Analyte</u>	Results (MRL)	MDL Me	ethod Limit	<u>DF</u>	Analyzed	Sequence	Batch
1,1,1,2-Tetrachloroethane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,1,1-Trichloroethane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,2,4-Trimethylbenzene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
2-Butanone	ND (0.0100)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
2-Hexanone	ND (0.0100)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
Acetone	ND (0.0100)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
Benzene	ND (0.0010)	82	60B	1	03/23/18 16:41	C8C0336	CC82325
Bromobenzene	ND (0.0020)	82	60B	1	03/23/18 16:41	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: VHB-20 Date Sampled: 03/21/18 09:53

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-12

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

<u>Analyte</u>	Results (MRL)	MDL Me	hod <u>Limit</u>	<u>DF</u>	Analyzed	<u>Sequence</u>	Batch
Bromochloromethane	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Bromodichloromethane	ND (0.0006)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Bromoform	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Bromomethane	ND (0.0020)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Chlorobenzene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Chloroethane	ND (0.0020)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Chloroform	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Chloromethane	ND (0.0020)	826)B	1	03/23/18 16:41	C8C0336	CC82325
cis-1,2-Dichloroethene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Dibromomethane	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Diethyl Ether	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Ethylbenzene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Hexachloroethane	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Isopropylbenzene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Methylene Chloride	ND (0.0020)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Naphthalene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
n-Butylbenzene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
n-Propylbenzene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
sec-Butylbenzene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Styrene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)	826)B	1	03/23/18 16:41	C8C0336	CC82325

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Quality

Dependability

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: VHB-20 Date Sampled: 03/21/18 09:53

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-12

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

Analyte	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 16:41	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 16:41	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 16:41	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 16:41	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 16:41	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 16:41	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 16:41	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 16:41	C8C0336	CC82325
Xylene O	ND (0.0010)		8260B		1	03/23/18 16:41	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 16:41	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 16:41		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		105 %		70-130				
Surrogate: 4-Bromofluorobenzene		86 %		70-130				
Surrogate: Dibromofluoromethane		99 %		70-130				
Surrogate: Toluene-d8		100 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: BD32118 Date Sampled: 03/21/18 08:00

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-13

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	03/26/18 14:01	C8C0361	CC82625
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,1-Dichloroethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,1-Dichloroethene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,1-Dichloropropene	ND (0.0020)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,2-Dibromoethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,2-Dichloroethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,2-Dichloropropane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,3-Dichloropropane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1,4-Dioxane - Screen	ND (0.500)		8260B		1	03/26/18 14:01	C8C0361	CC82625
1-Chlorohexane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
2,2-Dichloropropane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
2-Butanone	ND (0.0100)		8260B		1	03/26/18 14:01	C8C0361	CC82625
2-Chlorotoluene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
2-Hexanone	ND (0.0100)		8260B		1	03/26/18 14:01	C8C0361	CC82625
4-Chlorotoluene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
4-Isopropyltoluene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Acetone	ND (0.0100)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Benzene	0.0050 (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Bromobenzene	ND (0.0020)		8260B		1	03/26/18 14:01	C8C0361	CC82625

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: BD32118 Date Sampled: 03/21/18 08:00

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-13

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Bromochloromethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Bromodichloromethane	ND (0.0006)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Bromoform	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Bromomethane	ND (0.0020)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Carbon Disulfide	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Chlorobenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Chloroethane	ND (0.0020)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Chloroform	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Chloromethane	ND (0.0020)		8260B		1	03/26/18 14:01	C8C0361	CC82625
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Dibromochloromethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Dibromomethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Diethyl Ether	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Di-isopropyl ether	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Ethylbenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Hexachloroethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Isopropylbenzene	0.0016 (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Methylene Chloride	ND (0.0020)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Naphthalene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
n-Butylbenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
n-Propylbenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
sec-Butylbenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Styrene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
tert-Butylbenzene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Tetrachloroethene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: BD32118 Date Sampled: 03/21/18 08:00

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-13

Sample Matrix: Ground Water

Units: mg/L Analyst: MD

<u>Analyte</u>	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	Analyzed	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Toluene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Trichloroethene	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Vinyl Acetate	ND (0.0050)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Vinyl Chloride	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Xylene O	ND (0.0010)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Xylene P,M	ND (0.0020)		8260B		1	03/26/18 14:01	C8C0361	CC82625
Xylenes (Total)	ND (0.0020)		8260B		1	03/26/18 14:01		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		94 %		70-130				
Surrogate: 4-Bromofluorobenzene		84 %		70-130				
Surrogate: Dibromofluoromethane		89 %		70-130				
Surrogate: Toluene-d8		97 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: Trip Blank Date Sampled: 03/20/18 00:00

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-14

Sample Matrix: Aqueous

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte 1,1,1,2-Tetrachloroethane	Results (MRL) ND (0.0010)		<u>lethod</u> 3260B	<u>Limit</u>	<u>DF</u>	<u>Analyze</u> 03/26/18 13:		Batch CC82625
1,1,1-Trichloroethane	ND (0.0010)		3260B		1	03/26/18 13:		CC82625
1,1,2,2-Tetrachloroethane	ND (0.0005)	8	3260B		1	03/26/18 13:		CC82625
1,1,2-Trichloroethane	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,1-Dichloroethane	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,1-Dichloroethene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,1-Dichloropropene	ND (0.0020)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,2,3-Trichlorobenzene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,2,3-Trichloropropane	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,2,4-Trichlorobenzene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,2,4-Trimethylbenzene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,2-Dibromo-3-Chloropropane	ND (0.0050)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,2-Dibromoethane	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,2-Dichlorobenzene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,2-Dichloroethane	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,2-Dichloropropane	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,3,5-Trimethylbenzene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,3-Dichlorobenzene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,3-Dichloropropane	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,4-Dichlorobenzene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1,4-Dioxane - Screen	ND (0.500)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
1-Chlorohexane	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
2,2-Dichloropropane	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
2-Butanone	ND (0.0100)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
2-Chlorotoluene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
2-Hexanone	ND (0.0100)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
4-Chlorotoluene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
4-Isopropyltoluene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
4-Methyl-2-Pentanone	ND (0.0250)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
Acetone	ND (0.0100)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
Benzene	ND (0.0010)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625
Bromobenzene	ND (0.0020)	8	3260B		1	03/26/18 13:	10 C8C0361	CC82625

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: Trip Blank Date Sampled: 03/20/18 00:00

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-14

Sample Matrix: Aqueous

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte Bromochloromethane	Results (MRL) ND (0.0010)	MDL	Method 8260B	<u>Limit</u>	<u>DF</u>	Analyzed 03/26/18 13:10	Sequence C8C0361	Batch CC82625
Bromodichloromethane	ND (0.0010) ND (0.0006)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Bromoform	ND (0.0000) ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Bromomethane	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Carbon Disulfide	ND (0.0020) ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Chlorobenzene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Chloroethane	ND (0.0020)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Chloroform	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Chloromethane	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
cis-1,3-Dichloropropene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Dibromochloromethane	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Dibromomethane	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Diethyl Ether	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Di-isopropyl ether	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Ethylbenzene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Hexachloroethane	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Isopropylbenzene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Methylene Chloride	ND (0.0020)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Naphthalene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
n-Butylbenzene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
n-Propylbenzene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
sec-Butylbenzene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Styrene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
tert-Butylbenzene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Tetrachloroethene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
	(/							

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: Trip Blank Date Sampled: 03/20/18 00:00

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-14

Sample Matrix: Aqueous

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	<u>DF</u>	<u>Analyzed</u>	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Toluene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Trichloroethene	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Vinyl Acetate	ND (0.0050)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Vinyl Chloride	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Xylene O	ND (0.0010)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Xylene P,M	ND (0.0020)		8260B		1	03/26/18 13:10	C8C0361	CC82625
Xylenes (Total)	ND (0.0020)		8260B		1	03/26/18 13:10		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		96 %		70-130				
Surrogate: 4-Bromofluorobenzene		84 %		70-130				
Surrogate: Dibromofluoromethane		91 %		70-130				
Surrogate: Toluene-d8		99 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: Trip Blank Date Sampled: 03/21/18 00:00

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-15

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	03/23/18 13:17	C8C0336	CC82325
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,1-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,1-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,1-Dichloropropene	ND (0.0020)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,2-Dibromoethane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,2-Dichloroethane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,3-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1,4-Dioxane - Screen	ND (0.500)		8260B		1	03/23/18 13:17	C8C0336	CC82325
1-Chlorohexane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
2,2-Dichloropropane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
2-Butanone	ND (0.0100)		8260B		1	03/23/18 13:17	C8C0336	CC82325
2-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
2-Hexanone	ND (0.0100)		8260B		1	03/23/18 13:17	C8C0336	CC82325
4-Chlorotoluene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
4-Isopropyltoluene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Acetone	ND (0.0100)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Benzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Bromobenzene	ND (0.0020)		8260B		1	03/23/18 13:17	C8C0336	CC82325

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The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: Trip Blank Date Sampled: 03/21/18 00:00

Percent Solids: N/A Initial Volume: 5 Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-15

Sample Matrix: Aqueous

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

Analyte Bromochloromethane	Results (MRL) ND (0.0010)	MDL	Method 8260B	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u> 03/23/18 13:17	Sequence C8C0336	Batch CC82325
Bromodichloromethane	ND (0.0006)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Bromoform	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Bromomethane	ND (0.0020)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Carbon Disulfide	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Carbon Tetrachloride	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Chlorobenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Chloroethane	ND (0.0020)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Chloroform	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Chloromethane	ND (0.0020)		8260B		1	03/23/18 13:17	C8C0336	CC82325
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Dibromochloromethane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Dibromomethane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Dichlorodifluoromethane	ND (0.0020)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Diethyl Ether	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Di-isopropyl ether	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Ethylbenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Hexachlorobutadiene	ND (0.0006)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Hexachloroethane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Isopropylbenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Methylene Chloride	ND (0.0020)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Naphthalene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
n-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
n-Propylbenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
sec-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Styrene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
tert-Butylbenzene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Tetrachloroethene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave Client Sample ID: Trip Blank Date Sampled: 03/21/18 00:00

Percent Solids: N/A
Initial Volume: 5
Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1803460 ESS Laboratory Sample ID: 1803460-15

Sample Matrix: Aqueous

Units: mg/L Analyst: MD

8260B Volatile Organic Compounds

<u>Analyte</u>	Results (MRL)	MDL	Method	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	Sequence	Batch
Tetrahydrofuran	ND (0.0050)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Toluene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Trichloroethene	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Trichlorofluoromethane	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Vinyl Acetate	ND (0.0050)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Vinyl Chloride	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Xylene O	ND (0.0010)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Xylene P,M	ND (0.0020)		8260B		1	03/23/18 13:17	C8C0336	CC82325
Xylenes (Total)	ND (0.0020)		8260B		1	03/23/18 13:17		[CALC]
		%Recovery	Qualifier	Limits				
Surrogate: 1,2-Dichloroethane-d4		103 %		70-130				
Surrogate: 4-Bromofluorobenzene		87 %		70-130				
Surrogate: Dibromofluoromethane		97 %		70-130				
Surrogate: Toluene-d8		102 %		70-130				



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Batch CC82325 - 5030B

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

Quality Control Data

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

8260B Volatile Organic Compounds

Datch CC02323 - 3030B			
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
.,1,2-Trichloroethane	ND	0.0010	mg/L
,1-Dichloroethane	ND	0.0010	mg/L
.,1-Dichloroethene	ND	0.0010	mg/L
,1-Dichloropropene	ND	0.0020	mg/L
,2,3-Trichlorobenzene	ND	0.0010	mg/L
,2,3-Trichloropropane	ND	0.0010	mg/L
,2,4-Trichlorobenzene	ND	0.0010	mg/L
,2,4-Trimethylbenzene	ND	0.0010	mg/L
,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L
2-Dibromoethane	ND	0.0010	mg/L
2-Dichlorobenzene	ND	0.0010	mg/L
,2-Dichloroethane	ND	0.0010	mg/L
,2-Dichloropropane	ND	0.0010	mg/L
3,5-Trimethylbenzene	ND	0.0010	mg/L
3-Dichlorobenzene	ND	0.0010	mg/L
3-Dichloropropane	ND	0.0010	mg/L
4-Dichlorobenzene	ND	0.0010	mg/L
4-Dioxane - Screen	ND	0.500	mg/L
Chlorohexane	ND	0.0010	mg/L
2-Dichloropropane	ND	0.0010	mg/L
Butanone	ND	0.0100	mg/L
-Chlorotoluene	ND	0.0010	mg/L
Hexanone	ND	0.0100	mg/L
Chlorotoluene	ND	0.0010	mg/L
Isopropyltoluene	ND	0.0010	mg/L
Methyl-2-Pentanone	ND	0.0250	mg/L
cetone	ND	0.0100	mg/L
enzene	ND	0.0010	mg/L
romobenzene	ND	0.0020	mg/L
romochloromethane	ND	0.0010	mg/L
romodichloromethane	ND	0.0006	mg/L
romoform	ND	0.0010	mg/L
romomethane	ND	0.0020	mg/L
arbon Disulfide	ND	0.0010	mg/L
arbon Tetrachloride	ND	0.0010	mg/L
nlorobenzene	ND	0.0010	mg/L
hloroethane	ND	0.0020	mg/L
hloroform	ND	0.0010	mg/L
hlavamathana	ND	0.0020	mg/L
nioromethane	ND	0.0020	
hloromethane is-1,2-Dichloroethene	ND	0.0010	mg/L

Service



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Batch CC82325 - 5030B

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

8	260)B	Volatile	Organic	Compound	IS
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Batch CC82325 - 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				
Foluene	ND	0.0010	mg/L				
rans-1,2-Dichloroethene	ND	0.0010	mg/L				
rans-1,3-Dichloropropene	ND	0.0004	mg/L				
Frichloroethene	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				
Kylenes (Total)	ND	0.0020	mg/L				
Surrogate: 1,2-Dichloroethane-d4	0.0255		mg/L	0.02500	102	70-130	
Surrogate: 4-Bromofluorobenzene	0.0220		mg/L	0.02500	88	70-130	
Surrogate: Dibromofluoromethane	0.0243		mg/L	0.02500	97	70-130	
Surrogate: Toluene-d8	0.0251		mg/L	0.02500	100	70-130	
LCS							
1,1,1,2-Tetrachloroethane	8.71		ug/L	10.00	87	70-130	
1,1,1-Trichloroethane	9.99		ug/L	10.00	100	70-130	
1,1,2,2-Tetrachloroethane	10.3		ug/L	10.00	103	70-130	
1,1,2-Trichloroethane	10.8		ug/L	10.00	108	70-130	
1,1-Dichloroethane	10.4		ug/L	10.00	104	70-130	
1,1-Dichloroethene	10.1		ug/L	10.00	101	70-130	
1,1-Dichloropropene	10.7		ug/L	10.00	107	70-130	
1,2,3-Trichlorobenzene	10.4		ug/L	10.00	104	70-130	
1,2,3-Trichloropropane	9.47		ug/L	10.00	95	70-130	



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Batch CC82325 - 5030B

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

3260B Volatile	Organic	Compounds
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Batch CC82325 - 5030B					
1,2,4-Trichlorobenzene	10.3	ug/L	10.00	103	70-130
1,2,4-Trimethylbenzene	10.1	ug/L	10.00	101	70-130
1,2-Dibromo-3-Chloropropane	8.78	ug/L	10.00	88	70-130
1,2-Dibromoethane	10.2	ug/L	10.00	102	70-130
1,2-Dichlorobenzene	10.2	ug/L	10.00	102	70-130
1,2-Dichloroethane	11.2	ug/L	10.00	112	70-130
1,2-Dichloropropane	10.6	ug/L	10.00	106	70-130
1,3,5-Trimethylbenzene	10.1	ug/L	10.00	101	70-130
1,3-Dichlorobenzene	10.0	ug/L	10.00	100	70-130
1,3-Dichloropropane	10.9	ug/L	10.00	109	70-130
1,4-Dichlorobenzene	10.4	ug/L	10.00	104	70-130
1,4-Dioxane - Screen	212	ug/L	200.0	106	0-332
1-Chlorohexane	9.04	ug/L	10.00	90	70-130
2,2-Dichloropropane	8.72	ug/L	10.00	87	70-130
2-Butanone	57.2	ug/L	50.00	114	70-130
2-Chlorotoluene	10.2	ug/L	10.00	102	70-130
2-Hexanone	55.2	ug/L	50.00	110	70-130
4-Chlorotoluene	10.2	ug/L	10.00	102	70-130
4-Isopropyltoluene	9.66	ug/L	10.00	97	70-130
4-Methyl-2-Pentanone	54.0	ug/L	50.00	108	70-130
Acetone	49.5	ug/L	50.00	99	70-130
Benzene	10.6	ug/L	10.00	106	70-130
Bromobenzene	9.91	ug/L	10.00	99	70-130
Bromochloromethane	10.4	ug/L	10.00	104	70-130
Bromodichloromethane	9.84	ug/L	10.00	98	70-130
Bromoform	8.55	ug/L	10.00	86	70-130
Bromomethane	12.1	ug/L	10.00	121	70-130
Carbon Disulfide	10.2	ug/L	10.00	102	70-130
Carbon Tetrachloride	8.97	ug/L	10.00	90	70-130
Chlorobenzene	10.2	ug/L	10.00	102	70-130
Chloroethane	11.4	ug/L	10.00	114	70-130
Chloroform	11.0	ug/L	10.00	110	70-130
Chloromethane	12.5	ug/L	10.00	125	70-130
cis-1,2-Dichloroethene	10.4	ug/L	10.00	104	70-130
cis-1,3-Dichloropropene	9.98	ug/L	10.00	100	70-130
Dibromochloromethane	8.14	ug/L	10.00	81	70-130
Dibromomethane	10.5	ug/L	10.00	105	70-130
Dichlorodifluoromethane	11.3	ug/L	10.00	113	70-130
Diethyl Ether	10.3	ug/L	10.00	103	70-130
Di-isopropyl ether	10.9	ug/L	10.00	109	70-130
Ethyl tertiary-butyl ether	9.98	ug/L	10.00	100	70-130
Ethylbenzene	9.89	ug/L	10.00	99	70-130
Hexachlorobutadiene	9.96	ug/L	10.00	100	70-130
Hexachloroethane	7.79	ug/L	10.00	78	70-130



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Batch CC82325 - 5030B

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

8	260)B	Volatile	Organic	Compound	IS
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Datcii CC02323 - 3030D								
Methyl tert-Butyl Ether	9.86	ug/L	10.00	99	70-130			
Methylene Chloride	10.7	ug/L	10.00	107	70-130			
Naphthalene	11.0	ug/L	10.00	110	70-130			
n-Butylbenzene	9.64	ug/L	10.00	96	70-130			
n-Propylbenzene	10.1	ug/L	10.00	101	70-130			
sec-Butylbenzene	9.94	ug/L	10.00	99	70-130			
Styrene	9.58	ug/L	10.00	96	70-130			
tert-Butylbenzene	9.86	ug/L	10.00	99	70-130			
Tertiary-amyl methyl ether	9.23	ug/L	10.00	92	70-130			
Tetrachloroethene	8.77	ug/L	10.00	88	70-130			
Tetrahydrofuran	10.7	ug/L	10.00	107	70-130			
Toluene	10.5	ug/L	10.00	105	70-130			
trans-1,2-Dichloroethene	10.8	ug/L	10.00	108	70-130			
trans-1,3-Dichloropropene	7.49	ug/L	10.00	75	70-130			
Trichloroethene	10.5	ug/L	10.00	105	70-130			
Trichlorofluoromethane	10.4		10.00	104	70-130			
Vinyl Acetate	9.47	ug/L	10.00	95	70-130			
		ug/L		115				
Vinyl Chloride	11.5	ug/L	10.00		70-130			
Xylene O	10.1	ug/L	10.00	101	70-130			
Xylene P,M	19.8	ug/L	20.00	99	70-130			
Xylenes (Total)	29.9	mg/L	0.03500		70.100			
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	0.0274	mg/L	0.02500	109	70-130			
Surrogate: Toluene-d8	0.0256	mg/L	0.02500	102	70-130			
LCS Dup								
1,1,1,2-Tetrachloroethane	7.91	ug/L	10.00	79	70-130	10	25	
1,1,1-Trichloroethane	10.0	ug/L	10.00	100	70-130	0.5	25	
1,1,2,2-Tetrachloroethane	9.92	ug/L	10.00	99	70-130	4	25	
1,1,2-Trichloroethane	10.3	ug/L	10.00	103	70-130	5	25	
1,1-Dichloroethane	10.2	ug/L	10.00	102	70-130	2	25	
1,1-Dichloroethene	10.1	ug/L	10.00	101	70-130	0.4	25	
1,1-Dichloropropene	10.5	ug/L	10.00	105	70-130	1	25	
1,2,3-Trichlorobenzene	10.0	ug/L	10.00	100	70-130	4	25	
1,2,3-Trichloropropane	9.06	ug/L	10.00	91	70-130	4	25	
1,2,4-Trichlorobenzene	10.0	ug/L	10.00	100	70-130	2	25	
1,2,4-Trimethylbenzene	9.99	ug/L	10.00	100	70-130	0.7	25	
		49/-						
1,2-Dibromo-3-Chloropropane	8.03	ug/L	10.00	80	70-130	9	25	
			10.00 10.00	80 100	70-130 70-130	9 3	25 25	
1,2-Dibromoethane	8.03	ug/L						
1,2-Dibromoethane 1,2-Dichlorobenzene	8.03 9.95	ug/L ug/L	10.00	100	70-130	3	25	
1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichloroethane	8.03 9.95 10.2	ug/L ug/L ug/L	10.00 10.00	100 102	70-130 70-130	3 0.3	25 25	
1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane	8.03 9.95 10.2 11.0	ug/L ug/L ug/L ug/L ug/L	10.00 10.00 10.00	100 102 110	70-130 70-130 70-130	3 0.3 1	25 25 25 25	
1,2-Dibromo-3-Chloropropane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Dichlorobenzene	8.03 9.95 10.2 11.0 10.4	ug/L ug/L ug/L ug/L	10.00 10.00 10.00 10.00	100 102 110 104	70-130 70-130 70-130 70-130	3 0.3 1 2	25 25 25	



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

Quality Control Data

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier
OCCOR Valetile Commission Commission de										

8260B Volatile	Organic	Compounds
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Batch CC82325 - 5030B								
1,4-Dichlorobenzene	10.3	ug/L	10.00	103	70-130	0.9	25	
1,4-Dioxane - Screen	199	ug/L	200.0	100	0-332	6	200	
1-Chlorohexane	8.84	ug/L	10.00	88	70-130	2	25	
2,2-Dichloropropane	8.51	ug/L	10.00	85	70-130	2	25	
2-Butanone	54.8	ug/L	50.00	110	70-130	4	25	
2-Chlorotoluene	10.2	ug/L	10.00	102	70-130	0.3	25	
2-Hexanone	51.7	ug/L	50.00	103	70-130	6	25	
4-Chlorotoluene	10.2	ug/L	10.00	102	70-130	0.2	25	
4-Isopropyltoluene	9.62	ug/L	10.00	96	70-130	0.4	25	
4-Methyl-2-Pentanone	50.9	ug/L	50.00	102	70-130	6	25	
Acetone	45.8	ug/L	50.00	92	70-130	8	25	
Benzene	10.4	ug/L	10.00	104	70-130	2	25	
Bromobenzene	9.99	ug/L	10.00	100	70-130	0.8	25	
Bromochloromethane	10.2	ug/L	10.00	102	70-130	2	25	
Bromodichloromethane	9.72	ug/L	10.00	97	70-130	1	25	
Bromoform	7.72	ug/L	10.00	77	70-130	10	25	
Bromomethane	11.8	ug/L	10.00	118	70-130	2	25	
Carbon Disulfide	10.1	ug/L	10.00	101	70-130	2	25	
Carbon Tetrachloride	8.88	ug/L	10.00	89	70-130	1	25	
Chlorobenzene	10.0	ug/L	10.00	100	70-130	2	25	
Chloroethane	11.4	ug/L	10.00	114	70-130	0.3	25	
Chloroform	10.6	ug/L	10.00	106	70-130	3	25	
Chloromethane	12.5	ug/L	10.00	125	70-130	0	25	
cis-1,2-Dichloroethene	10.3	ug/L	10.00	103	70-130	1	25	
cis-1,3-Dichloropropene	9.60	ug/L	10.00	96	70-130	4	25	
Dibromochloromethane	8.02	ug/L	10.00	80	70-130	1	25	
Dibromomethane	10.3	ug/L	10.00	103	70-130	2	25	
Dichlorodifluoromethane	11.2	ug/L	10.00	112	70-130	0.5	25	
Diethyl Ether	10.1	ug/L	10.00	101	70-130	2	25	
Di-isopropyl ether	10.7	ug/L	10.00	107	70-130	2	25	
Ethyl tertiary-butyl ether	9.63	ug/L	10.00	96	70-130	4	25	
Ethylbenzene	9.87	ug/L	10.00	99	70-130	0.2	25	
Hexachlorobutadiene	9.67	ug/L	10.00	97	70-130	3	25	
Hexachloroethane	7.53	ug/L	10.00	75	70-130	3	25	
Isopropylbenzene	9.62	ug/L	10.00	96	70-130	0.2	25	
Methyl tert-Butyl Ether	9.59	ug/L	10.00	96	70-130	3	25	
Methylene Chloride	10.3	ug/L	10.00	103	70-130	3	25	
Naphthalene	9.96	ug/L	10.00	100	70-130	10	25	
n-Butylbenzene	9.49	ug/L	10.00	95	70-130	2	25	
n-Propylbenzene	10.2	ug/L	10.00	102	70-130	0.3	25	
sec-Butylbenzene	9.97	ug/L	10.00	100	70-130	0.3	25	
Styrene	9.31	ug/L	10.00	93	70-130	3	25	
tert-Butylbenzene	9.79	ug/L	10.00	98	70-130	0.7	25	
Tertiary-amyl methyl ether	8.94	ug/L	10.00	89	70-130	3	25	
Tetrachloroethene	8.78	ug/L	10.00	88	70-130	0.1	25	

Service



The Microbiology Division of Thielsch Engineering, Inc.

%REC



RPD

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

Quality Control Data

Spike

Source

				Эрікс	Jource		/UINEC		NID	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifie
		8260B Vol	atile Organ	ic Compou	unds					
Batch CC82325 - 5030B										
Tetrahydrofuran	10.1		ug/L	10.00		101	70-130	6	25	
Toluene	10.3		ug/L	10.00		103	70-130	2	25	
trans-1,2-Dichloroethene	10.5		ug/L	10.00		105	70-130	3	25	
trans-1,3-Dichloropropene	7.22		ug/L	10.00		72	70-130	4	25	
Trichloroethene	10.5		ug/L	10.00		105	70-130	0.3	25	
Trichlorofluoromethane	10.4		ug/L	10.00		104	70-130	0.2	25	
/inyl Acetate	9.32		ug/L	10.00		93	70-130	2	25	
Vinyl Chloride	11.4		ug/L	10.00		114	70-130	0.4	25	
Kylene O	10.0		ug/L	10.00		100	70-130	0.5	25	
Kylene P,M	19.8		ug/L	20.00		99	70-130	0.05	25	
(ylenes (Total)	29.9		mg/L							
Surrogate: 1,2-Dichloroethane-d4	0.0269		mg/L	0.02500		108	70-130			
Surrogate: 4-Bromofluorobenzene	0.0235		mg/L	0.02500		94	70-130			
Surrogate: Dibromofluoromethane	0.0270		mg/L	0.02500		108	70-130			
Surrogate: Toluene-d8	0.0255		mg/L	0.02500		102	70-130			
Batch CC82625 - 5030B										
Blank										
,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
,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							
.,3,5-Trimethylbenzene	ND	0.0010	mg/L							

185 Frances Avenue, Cranston, RI 02910-2211

1.3-Dichlorobenzene

1,3-Dichloropropane

1,4-Dichlorobenzene

1,4-Dioxane - Screen

2,2-Dichloropropane

1-Chlorohexane

2-Chlorotoluene

4-Chlorotoluene

4-Isopropyltoluene

2-Butanone

2-Hexanone

ND

2211 Tel: 401-461-7181
Dependability ◆ Quality

mg/L

0.0010

0.0010

0.0010

0.500

0.0010

0.0010

0.0100

0.0010

0.0100

0.0010

0.0010

Fax: 401-461-4486



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

Quality Control Data

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

8260B Volatile Organic Compounds

Batch CC82625 - 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		0.0010	mg/L
	ND		
Vinyl Acetate	ND	0.0050	mg/L
Vinyl Chloride	ND	0.0010	mg/L
Xylene O	ND	0.0010	mg/L



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Batch CC82625 - 5030B

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

8	26	0	B	V	olat	ile	Or	gar	ιic	Co	m	p	Οl	ur	lC	ls
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Batch CC82625 - 5030B							
Xylene P,M	ND	0.0020	mg/L				
Xylenes (Total)	ND	0.0020	mg/L				
Surrogate: 1,2-Dichloroethane-d4	0.0240		mg/L	0.02500	96	70-130	
Surrogate: 4-Bromofluorobenzene	0.0211		mg/L	0.02500	84	70-130	
Surrogate: Dibromofluoromethane	0.0226		mg/L	0.02500	91	70-130	
Surrogate: Toluene-d8	0.0247		mg/L	0.02500	99	70-130	
LCS							
1,1,1,2-Tetrachloroethane	8.20		ug/L	10.00	82	70-130	
1,1,1-Trichloroethane	10.3		ug/L	10.00	103	70-130	
1,1,2,2-Tetrachloroethane	10.5		ug/L	10.00	105	70-130	
1,1,2-Trichloroethane	10.7		ug/L	10.00	107	70-130	
1,1-Dichloroethane	10.4		ug/L	10.00	104	70-130	
1,1-Dichloroethene	10.3		ug/L	10.00	103	70-130	
1,1-Dichloropropene	11.1		ug/L	10.00	111	70-130	
1,2,3-Trichlorobenzene	10.8		ug/L	10.00	108	70-130	
1,2,3-Trichloropropane	9.81		ug/L	10.00	98	70-130	
1,2,4-Trichlorobenzene	10.4		ug/L	10.00	104	70-130	
1,2,4-Trimethylbenzene	10.4		ug/L	10.00	104	70-130	
1,2-Dibromo-3-Chloropropane	8.76		ug/L	10.00	88	70-130	
1,2-Dibromoethane	10.2		ug/L	10.00	102	70-130	
1,2-Dichlorobenzene	10.7		ug/L	10.00	107	70-130	
1,2-Dichloroethane	11.3		ug/L	10.00	113	70-130	
1,2-Dichloropropane	10.8		ug/L	10.00	108	70-130	
1,3,5-Trimethylbenzene	10.3		ug/L	10.00	103	70-130	
1,3-Dichlorobenzene	10.3		ug/L	10.00	103	70-130	
1,3-Dichloropropane	11.1		ug/L	10.00	111	70-130	
1,4-Dichlorobenzene	10.6		ug/L	10.00	106	70-130	
1,4-Dioxane - Screen	214		ug/L	200.0	107	0-332	
1-Chlorohexane	9.03		ug/L	10.00	90	70-130	
2,2-Dichloropropane	9.01		ug/L	10.00	90	70-130	
2-Butanone	57.8		ug/L	50.00	116	70-130	
2-Chlorotoluene	10.6		ug/L	10.00	106	70-130	
2-Hexanone	54.8		ug/L	50.00	110	70-130	
4-Chlorotoluene	10.5		ug/L	10.00	105	70-130	
4-Isopropyltoluene	9.86		ug/L	10.00	99	70-130	
4-Methyl-2-Pentanone	54.0		ug/L	50.00	108	70-130	
Acetone	49.1		ug/L	50.00	98	70-130	
Benzene	10.7		ug/L	10.00	107	70-130	
Bromobenzene	10.4		ug/L	10.00	104	70-130	
Bromochloromethane	10.4		ug/L	10.00	104	70-130	
Bromodichloromethane	9.82		ug/L	10.00	98	70-130	
Bromoform	8.23		ug/L	10.00	82	70-130	
Bromomethane	10.2		ug/L	10.00	102	70-130	
Carbon Disulfide	10.3		ug/L	10.00	103	70-130	
Carbon Tetrachloride	9.14		ug/L	10.00	91	70-130	



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Batch CC82625 - 5030B

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

8260B Volatile Organic Compounds

Batcii CC02023 - 3030B								
Chlorobenzene	10.4	ug/L	10.00	104	70-130			
Chloroethane	12.0	ug/L	10.00	120	70-130			
Chloroform	10.8	ug/L	10.00	108	70-130			
Chloromethane	14.7	ug/L	10.00	147	70-130			B+
cis-1,2-Dichloroethene	10.6	ug/L	10.00	106	70-130			
cis-1,3-Dichloropropene	10.2	ug/L	10.00	102	70-130			
Dibromochloromethane	8.36	ug/L	10.00	84	70-130			
Dibromomethane	10.5	ug/L	10.00	105	70-130			
Dichlorodifluoromethane	11.4	ug/L	10.00	114	70-130			
Diethyl Ether	10.5	ug/L	10.00	105	70-130			
Di-isopropyl ether	11.2	ug/L	10.00	112	70-130			
Ethyl tertiary-butyl ether	10.1	ug/L	10.00	101	70-130			
Ethylbenzene	10.2	ug/L	10.00	102	70-130			
Hexachlorobutadiene	10.2	ug/L	10.00	102	70-130			
Hexachloroethane	7.93	ug/L	10.00	79	70-130			
Isopropylbenzene	10.2	ug/L	10.00	102	70-130			
Methyl tert-Butyl Ether	10.2	ug/L	10.00	102	70-130			
Methylene Chloride	10.6	ug/L	10.00	106	70-130			
Naphthalene	11.0		10.00	110	70-130 70-130			
n-Butylbenzene	10.0	ug/L	10.00	100	70-130			
		ug/L						
n-Propylbenzene	10.5	ug/L	10.00	105	70-130			
sec-Butylbenzene	10.3	ug/L	10.00	103	70-130			
Styrene	9.64	ug/L	10.00	96	70-130			
tert-Butylbenzene	10.4	ug/L	10.00	104	70-130			
Fertiary-amyl methyl ether	9.26	ug/L	10.00	93	70-130			
Tetrachloroethene	9.12	ug/L	10.00	91	70-130			
Tetrahydrofuran	10.5	ug/L	10.00	105	70-130			
Toluene	10.7	ug/L	10.00	107	70-130			
trans-1,2-Dichloroethene	10.6	ug/L	10.00	106	70-130			
trans-1,3-Dichloropropene	7.77	ug/L	10.00	78	70-130			
Trichloroethene	10.7	ug/L	10.00	107	70-130			
Trichlorofluoromethane	10.7	ug/L	10.00	107	70-130			
Vinyl Acetate	10.0	ug/L	10.00	100	70-130			
Vinyl Chloride	11.7	ug/L	10.00	117	70-130			
Kylene O	10.4	ug/L	10.00	104	70-130			
Xylene P,M	20.4	ug/L	20.00	102	70-130			
Xylenes (Total)	30.8	mg/L						
Surrogate: 1,2-Dichloroethane-d4	0.0271	mg/L	0.02500	109	70-130			
Surrogate: 4-Bromofluorobenzene	0.0234	mg/L	0.02500	94	70-130			
Surrogate: Dibromofluoromethane	0.0269	mg/L	0.02500	108	70-130			
Surrogate: Toluene-d8	0.0254	mg/L	0.02500	102	70-130			
LCS Dup								
1,1,1,2-Tetrachloroethane	7.55	ug/L	10.00	76	70-130	8	25	
1,1,1-Trichloroethane	9.36	ug/L	10.00	94	70-130	10	25	
1,1,2,2-Tetrachloroethane	9.55	ug/L	10.00	96	70-130	10	25	



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

8	26	ÜE	3 1	۷o	lati	le	U	rg	jai	ΊC	C	OI	m	р	0	u	n	d	IS
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9.74 9.52 9.85 10.2 9.65 8.66 9.49 9.57 7.28 9.22 9.65	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.00 10.00 10.00 10.00 10.00 10.00 10.00	97 95 98 102 96 87 95	70-130 70-130 70-130 70-130 70-130 70-130 70-130	10 9 5 9 12 12 10	25 25 25 25 25 25 25	
9.85 10.2 9.65 8.66 9.49 9.57 7.28 9.22 9.65	ug/L ug/L ug/L ug/L ug/L ug/L	10.00 10.00 10.00 10.00 10.00	98 102 96 87 95	70-130 70-130 70-130 70-130	5 9 12 12	25 25 25 25	
9.65 8.66 9.49 9.57 7.28 9.22 9.65	ug/L ug/L ug/L ug/L ug/L ug/L	10.00 10.00 10.00 10.00	102 96 87 95	70-130 70-130 70-130	9 12 12	25 25 25	
9.65 8.66 9.49 9.57 7.28 9.22 9.65	ug/L ug/L ug/L ug/L ug/L	10.00 10.00 10.00	96 87 95	70-130 70-130	12 12	25 25	
8.66 9.49 9.57 7.28 9.22 9.65	ug/L ug/L ug/L ug/L	10.00 10.00	87 95	70-130	12	25	
9.49 9.57 7.28 9.22 9.65	ug/L ug/L ug/L	10.00	95				
9.57 7.28 9.22 9.65	ug/L ug/L			70-130	10		
7.28 9.22 9.65	ug/L	10.00	00		10	25	
9.22 9.65			96	70-130	8	25	
9.65	ug/L	10.00	73	70-130	18	25	
	. 5, -	10.00	92	70-130	10	25	
	ug/L	10.00	96	70-130	10	25	
10.2	ug/L	10.00	102	70-130	10	25	
9.90	ug/L	10.00	99	70-130	9	25	
9.54	ug/L	10.00	95	70-130	7	25	
9.60	ug/L	10.00	96	70-130	7	25	
9.94	ug/L	10.00	99	70-130	11	25	
9.62	ug/L	10.00	96	70-130	10	25	
183	ug/L	200.0	91	0-332	16	200	
8.31	ug/L	10.00	83	70-130	8	25	
8.05	ug/L	10.00	80	70-130	11	25	
50.5	ug/L	50.00	101	70-130	13	25	
9.94		10.00	99	70-130	7	25	
47.4	ug/L	50.00	95	70-130	14	25	
9.78		10.00	98	70-130	7	25	
9.19		10.00	92	70-130	7	25	
47.7	ug/L	50.00	95	70-130	12	25	
43.3		50.00	87	70-130	13	25	
		10.00	99	70-130	8	25	
					8		
9.38		10.00	94	70-130	10	25	
		10.00	90	70-130	9	25	
		10.00	72	70-130	13	25	
		10.00	93	70-130	10	25	
			94				
			84				
		10.00	95	70-130	9	25	
11.1	ug/L	10.00	111	70-130	8	25	
9.98		10.00	100	70-130	8	25	
					5		B+
		10.00		70-130	11	25	
	9.54 9.60 9.94 9.62 183 8.31 8.05 50.5 9.94 47.4 9.78 9.19 47.7 43.3 9.88 9.56 9.38 8.98 7.20 9.30 9.44 8.44 9.50 11.1	9.54	9.54	9.54 9.60 9.60 9.94 9.94 9.62 9.62 9.62 9.63 183 9.65 183 9.65 183 18.05 184 10.00 96 185 10.00 80 101 10.00 81 10.00 82 10.00 83 10.00 80 101 9.94 10.00 96 101 9.94 10.00 97 101 9.94 10.00 98 101 9.97 10.00 99 101 9.98 9.19 101 10.00 98 9.19 102/L 10.00 98 9.19 103/L 10.00 99 104 10.00 99 105 106 107 108 108 108 108 108 108 108 108 108 108	9.54	9.54	9.54



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

				Spike	Source		%REC		RPD	
Analyte	Result	MRL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifier

8260B \	Volatile	Organic	Compounds
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Batch CC82625 - 5030B								
Di-isopropyl ether	10.2	ug/L	10.00	102	70-130	10	25	
Ethyl tertiary-butyl ether	9.10	ug/L	10.00	91	70-130	10	25	
Ethylbenzene	9.33	ug/L	10.00	93	70-130	9	25	
Hexachlorobutadiene	9.22	ug/L	10.00	92	70-130	10	25	
lexachloroethane	7.39	ug/L	10.00	74	70-130	7	25	
sopropylbenzene	9.36	ug/L	10.00	94	70-130	8	25	
ethyl tert-Butyl Ether	9.05	ug/L	10.00	90	70-130	10	25	
ethylene Chloride	9.66	ug/L	10.00	97	70-130	10	25	
aphthalene	9.44	ug/L	10.00	94	70-130	16	25	
Butylbenzene	9.07	ug/L	10.00	91	70-130	10	25	
Propylbenzene	9.77	ug/L	10.00	98	70-130	7	25	
c-Butylbenzene	9.51	ug/L	10.00	95	70-130	8	25	
yrene	8.69	ug/L	10.00	87	70-130	10	25	
t-Butylbenzene	9.58	ug/L	10.00	96	70-130	8	25	
rtiary-amyl methyl ether	8.26	ug/L	10.00	83	70-130	11	25	
etrachloroethene	8.20	ug/L	10.00	82	70-130	11	25	
trahydrofuran	9.34	ug/L	10.00	93	70-130	12	25	
luene	9.77	ug/L	10.00	98	70-130	9	25	
ans-1,2-Dichloroethene	9.77	ug/L	10.00	98	70-130	8	25	
ans-1,3-Dichloropropene	6.93	ug/L	10.00	69	70-130	11	25	B-
ichloroethene	10.2	ug/L	10.00	102	70-130	5	25	
ichlorofluoromethane	9.84	ug/L	10.00	98	70-130	8	25	
nyl Acetate	8.76	ug/L	10.00	88	70-130	14	25	
nyl Chloride	11.0	ug/L	10.00	110	70-130	7	25	
lene O	9.47	ug/L	10.00	95	70-130	9	25	
lene P,M	18.6	ug/L	20.00	93	70-130	9	25	
lenes (Total)	28.1	mg/L						
urrogate: 1,2-Dichloroethane-d4	0.0267	mg/L	0.02500	107	70-130			
ırrogate: 4-Bromofluorobenzene	0.0230	mg/L	0.02500	92	70-130			
urrogate: Dibromofluoromethane	0.0267	mg/L	0.02500	107	70-130			
urrogate: Toluene-d8	0.0253	mg/L	0.02500	101	70-130			



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

Notes and Definitions

Analyte included in the analysis, but not detected	U	Analyte included in the analysis, but not detecte
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D Diluted.

CD+ Continuing Calibration %Diff/Drift is above 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 Method Detection Limit MDL MRL Method Reporting Limit LOD Limit of Detection Limit of Quantitation LOQ **Detection Limit** DL Initial Volume I/V 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

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486



The Microbiology Division of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.

Client Project ID: 642 Allens Ave ESS Laboratory Work Order: 1803460

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

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486

Service

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Providence, RI - GZA/HDM	ESS Project ID: 1803460
Shipped/Delivered Via: Client	Date Received: 3/21/2018 Project Due Date: 3/28/2018 Days for Project: 5 Day
Air bill manifest present? NA NA	6. Does COC match bottles? Yes
Were custody seals present?	7. Is COC complete and correct?
3. Is radiation count <100 CPM?	8. Were samples received intact?
4. Is a Cooler Present? Y Temp:5.4 loed with:	
Was COC signed and dated by client? Y	
11. Any Subcontracting needed? Yes / No ESS Sample IDs: Analysis: TAT:	12. Were VOAs received? a. Air Lubbles in aqueous VOAs? b. Does methanol cover soil completely? Yes / No / NA
Are the samples properly preserved? a. If metals preserved upon receipt: b. Low Level VOA vials frozen: Sample Receiving Notes:	No Date: Time: By: Date: By:
14. Was there a need to contact Project Manager? a. Was there a need to contact the client? Who was contacted?	Yes / No Yes / No Date: By:
Buhhlee	cient Container Type Preservative Record pH (Cyanide and 608 ume
01 210187 Yes No 01 210188 Yes No 01 210189 Yes No 02 210184 Yes No	es

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservativ e	Record pH (Cyanide and 608 Pesticides)
01	210187	Yes	No	Yes	VOA Vial - HCI	1001	
01	210188	Yes	No	Yes	VOA Vial - HCI	1 · 4	
01	210189	Yes	No	Yes	VOA Vial - HCI	[1]	
02	210184	Yes	No	Yes	VOA Vial - HC!	1, 1	
02	210185	Yes	No	Yes	VOA Vial - HCI	HJ	
02	210186	Yes	No	Yes	VOA Vial - HCI	HCL	
03	210181	Yes	No	Yes	VOA Vial - HCI	HCI	
03	210182	Yes	No	Yes	VOA Vial - HCI	HCI	
03	210183	Yes	No	Yes	VOA Vial - HCi	HCL	
04	210178	Yes	No	Yes	VOA Vial - HCI	HOL	
04	210179	Yes	No	Yes	VOA Vial - HCl	HOL	
04	210180	Yes	No	Yes	VOA Vial - HCI	[177]	
05	210175	Yes	No	Yes	VOA Vial - HCI	F! 3I	
05	210176	Yes	No	Yes	VOA Vial - HCI	11.11	
05	210177	Yes	No	Yes	VOA Vial - HCI	II I	
06	210172	Yes	No	Yes	VOA Vial - HC	F '	
06	210173	Yes	No	Yes	VOA Vial - HU	(+ *	
06	210174	Yes	No	Yes	VOA Vial - 📳	1 1	
07	210169	Yes	No	Yes	VOA Vial - 1:	, 1	
07	210170	Yes	No	Yes	VOA Vial - H	y 1	
07	210171	Yes	No	Yes	VOA Vial - HC	1 .1	
08	210166	Yes	No	Yes	VOA Vial - HCI	F 1	
08	210167	Yes	No	Yes	VOA Vial - HO	1 .1	
08	210168	Yes	No	Yes	VOA Vial - HC	₹÷	

ESS Laboratory Sample and Choler Receir Checklist

Client:	<u>GZA</u>	- Providenc	e, RI - GZA/	HDM		SS Project ID:	1803460
09	210163	Yes	No	Yes	VOA Viat - HO	are Received.	3/21/2018
09	210164	Yes	No	Yes	VOA Vial - H		
09	210165	Yes	No	Yes	VOA Vial - 11		
10	210160	Yes	No	Yes	VOA Vial - H		
10	210161	Yes	No	Yes	VOA Vial - HC	:.	
10	210162	Yes	No	Yes	VOA Vial - 11	1 1	
11	210157	Yes	No	Yes	VOA Vial - 1		
11	210158	Yes	No	Yes	VOA Vial - H	; j	
11	210159	Yes	No	Yes	VOA Vial - H II	4+ Î	
12	210154	Yes	No	Yes	VOA Vial - H J	1.1	
12	210155	Yes	No	Yes	VOA Vial - 14.1	1.1	
12	210156	Yes	No	Yog	VCA Vial - H	1 1	
13	210151	Yes	No	Yes	VOA Vial - 1/	1 1	
13	210152	Yes	No	Yes	VOA Vial - F	1	
13	210153	Yes	No	Yes	VOA Vial - Por	1 1	
14	210149	Yes	No	Yes	VOA Vial - 1800	1 1	
14	210150	Yes	No	Yes	VOA Vial - 1400	•	
15	210147	Yes	No	Yes	VOA Vial - 1	t į	
15	210148	Yes	No	Y· s	VCA Vial - 1: 51	!	
l Review		1			\sim		
barcode	labels on co	rrect contair	ners?		Yes) No	1	
mpleted By:		ym			Date & Time: 301	18 T	746
viewed By:		K Ø	<u></u>		Date & ime.	1 8/15/2	803
etivered By:		\mathcal{D}	4			3/21/18	1803

ESS Laboratory	CHAIN OF CUSTODY			161015						
Division of Thielsch Engineering, Inc.	Trum Time			ESS Lab# 1803460						
185 Frances Avenue, Cranston RI 02910	Turn Time 5-Day Rush Regulatory State			Reporting						
Tel. (401) 461-7181 Fax (401) 461-4486	Is this project for any of the following?:			Limits						
www.esslaboratory.com	OCT RCP OMA MCP ORGP			Electonic Limit Checker Deliverables Mother (Please Specify →) Odd Standard Excel						
Of A GLOT NV MENTAL	Project # Project Name			Delivera	Dies Lylother	(Please Specify →) Pd	1.			
Contact Person	The state of the s									
ava thurt	State Address			/sis						
er) nathie	O O O O PO#			Analysis						
(401) 751-8613 (401) 751	lumber - 5613	Email Address	h	4						
ESS Lab Collection Collection		Sava haupted	ta cem		2					
ID Date Time Sample Type	Sample Matrix	Sample	e ID							
1 18312019 1000 (7	(5Nd)	62A-201			/					
2 3/21/18 1245 1	OVY	130 AUI			7					
2 2121/12		GE-3010			X					
7 7 7 110 1150		62-2040			X					
4 3/21/18 11/8		17-2000								
5 3/21/19 977		G G 309D			X					
2 01211		0t-319D			X					
6 3/21/18 1206		RCAL	74		X			-		
7 3/21/18 1308		001100			A					
8 3/21/16/955		RCA-122			X					
0 5 5 11		KGA-15			V					
9 3121/18 855		R(A-22			V		++++	++		
10 3120/19/1546		0(1)			X		\perp			
Container Type: AC-Air Cassette AG-Amber Glass	B-BOD Bottle C	-Cubitainer G - Glass O-Other		0	X					
Container Volume: 1-100 mL 2-2.5 gal 3-250 mL	4-300 mL 5-500	O O O O O O O O O O O O O O O O O O O	P-Poly S-Sterile	V-Vial	/					
Preservation Code: 1-Non Preserved 2-HCJ 3-H2SO4 4-	HNO3 5-NaOH 6-Me	7	-4 oz 10-8 oz 11- -NH4CI 10-DI H2O 11	-Other*	7					
			Containers per Sam		2					
Laboratory Use Only		Sampled by : 0 a - ara H	Containers per Sam	iple:	3					
Cooler Present:	ŀ	Commenter	mes man	eshi	iden E	Mc Maa	rd			
Seals Intact:		Sampled by: Lown Hours Chanes Linder Enc Magaza Comments: Pléase specify "Other" preservative and containers types in this space								
Cooler Temperature: Say °C						3				
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	Received By: (Signature, Date & Time)	Relinquished By: (Sig	gnature, l	Date & Time)	Receive	d By: (Signature,	Date & T	ime)	
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	3. (Relinquished By: (Sig	mature, l	Jate & Time)	Receive	d By: (Signature,	Date & Ti	me)	
						2.0				

ESS Laboratory	CHAIN OF CUSTODY			ESS Lab# 1803460						
Division of Thielsch Engineering, Inc.	Turn Time	6-Day Rush	Report		22100					
185 Frances Avenue, Cranston RI 02910 Tel. (401) 461-7181 Fax (401) 461-4486	Regulatory State		Limi]		
www.esslaboratory.com	Is this project for any of the following?: OCT RCP OMA MCP ORGP			Electonic Dumit Checker Standard Excel						
C A Company Name	- Project # Project Name			Deliverables (A)Other (Please Specify →) PD F						
Contact Person	33834.00 642 Alleys Are]						
Sava thunk	530 Broudway			1 1 1						
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(401) +51-8(1) 3 (40) FAX	Number 51-9613	Email Address					1]]			
ESS Lab Collection Collection	I "	Sara haupto 520.	com	18			1			
ID Date Time Sample Type	Sample Matrix	Sample ID						1 1		
11 3/2/11/9 1154 5	GW	VHB-1		X			 	\dashv		
12 312118 953		VHB-20			 	 	 	\dashv		
13 3/21/18 800		BD32119			 			+		
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3 1001140 000	 	The Blank	·							
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Container Type: AC-Air Cassette AG-Amber Gla	se BROD Bottle C.C.	ubitainer G Slass O-Other P-F		1 /						
Container Volume: 1-100 mL 2-2.5 gal 3-250 m			oly S-Sterile (V-V)al	<u> </u>						
	4-HNO3 5-NaOH 6-Metha			 	+	 	- - 	-		
			niners per Sample:	15		 		+		
Laboratory Use Only		Sampled by: LO Wan Hayes Enc Mgard, Charles Whater								
Cooler Present:		Comments: Please specify "Other" preservative and containers types in this space								
Seals Intact:					!			i		
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Relinquished by: (Signature, Date & Time)	Received By: (Sig	y: (Signature, Date & Time) Relinquished By: (Signature, Date & Time) Received By: (Signature, Date &				te & Time)				
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